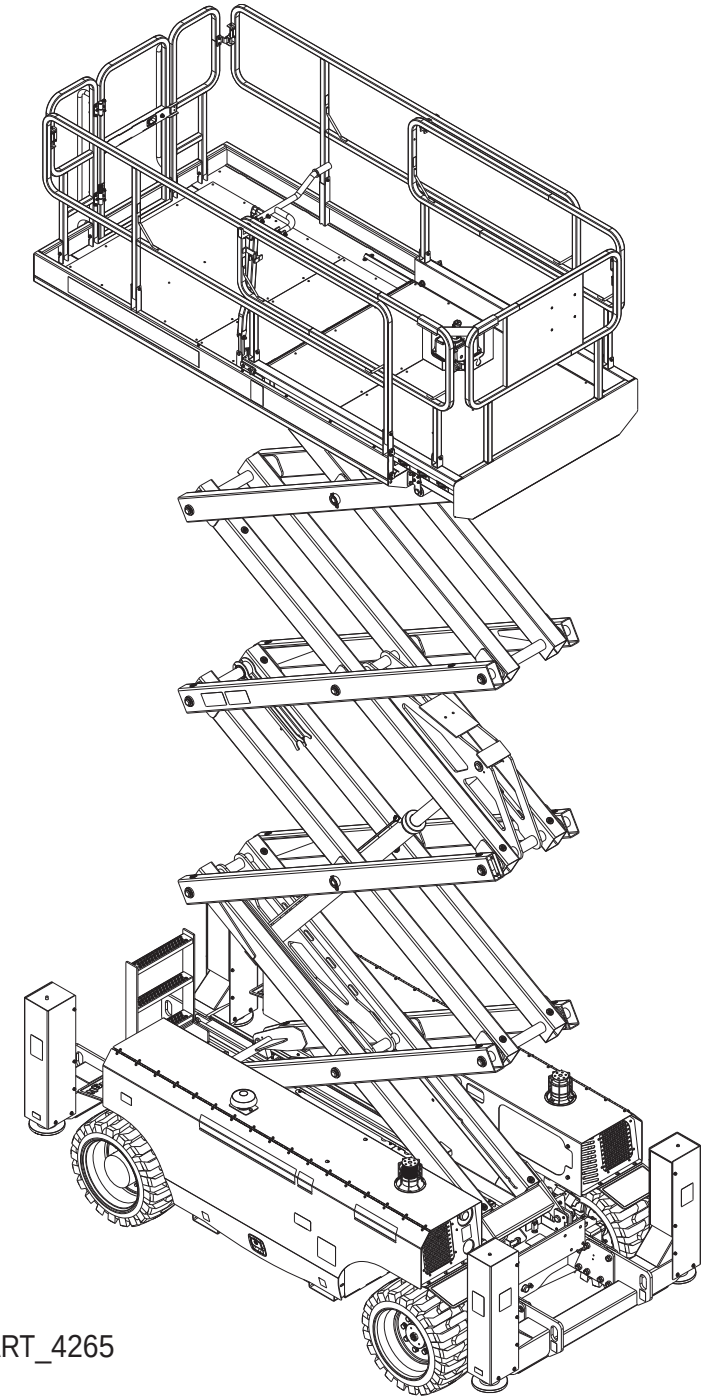
Service & Parts Manual

69RT Series



ART_4265

RT - Internal Combustion

3369RT Serial Number Range 13300000 - Up
4069RT Serial Number Range 13800000 - Up

Part # 43444
May 2022

Revision History

Date	Reason for Update
March 2019	New Release
August 2019	Added 43830, 43831, 43832, 43833 Updated descriptions of 43010, 43022, 43028, 43038
June 2020	Electrical Harness (4069RT) updated
December 2020	Electrical Harnesses Added
July 2021	Updated To Include Dual Fuel Engine Assembly

MEC Aerial Work Platforms

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Table of Contents

Service Introduction

This Service section is designed to provide you, the customer, with the instructions needed to properly maintain the MEC self-propelled aerial work platform. When used in conjunction with the illustrated Parts section in this manual and the Operator's Manual (provided separately), this manual will assist you in making necessary adjustments and repairs, and identifying and ordering the correct replacement parts.

All parts represented here are manufactured and supplied in accordance with MEC quality standards. We recommend that you use genuine MEC parts to ensure proper operation and reliable performance.

To obtain maximum benefits from your MEC Aerial Work Platforms, always follow the proper operating and maintenance procedures. Only trained authorized personnel should be allowed to operate or service this machine. Service personnel should read and study the Operator's, and the Service and Parts Manuals in order to gain a thorough understanding of the unit prior to making any repairs.

MEC Operator Policy

Note: *The best method to protect yourself and others from injury or death is to use common sense. If you are unsure of any operation, **don't start** until you are satisfied that it is safe to proceed and have discussed the situation with your supervisor.*

Service personnel and machine operators must understand and comply with all warnings and instructional decals on the body of the machine, at the ground controls, and platform control console.

DANGER

MODIFICATIONS OF THIS MACHINE FROM THE ORIGINAL DESIGN AND SPECIFICATIONS WITHOUT WRITTEN PERMISSION FROM MEC ARE STRICTLY FORBIDDEN. A MODIFICATION MAY COMPROMISE THE SAFETY OF THE MACHINE, SUBJECTING OPERATOR(S) TO SERIOUS INJURY OR DEATH.

MEC's policies and procedures demonstrate our commitment to Quality and our relentless ongoing efforts towards Continuous Improvement, due to which product specifications are subject to change without notice.

Any procedures not found within this manual must be evaluated by the individual to assure oneself that they are "proper and safe."

Your MEC Aerial Work Platform has been designed, built, and tested to provide many years of safe, dependable service. Only trained, authorized personnel should be allowed to operate or service the machine.

MEC, as manufacturer, has no direct control over machine application and operation. Proper safety practices are the responsibility of the user and all operating personnel.

If there is a question on application and/or operation, contact MEC Aerial Work Platforms:

MEC Aerial Work Platforms

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Safety Symbols & General Safety Tips

MEC manuals and decals use symbols, colors and signal words to help you recognize important safety, operation and maintenance information.

RED and the word DANGER – Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

ORANGE and the word WARNING – Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

YELLOW with alert symbol and the word CAUTION – Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

YELLOW without alert symbol and the word CAUTION – Indicates a potentially hazardous situation which, if not avoided, may result in property damage.

GREEN and the word NOTICE – Indicates operation or maintenance information.

Regular inspection and constant maintenance is the key to efficient economical operation of your aerial work platform. It will help to assure that your equipment will perform satisfactorily with a minimum of service and repair.

The actual operating environment of the machine governs the inspection schedule. Correct lubrication is an essential part of the preventative maintenance to minimize wear on working parts and ensure against premature failure. By maintaining correct lubrication, the possibility of mechanical failure and resulting downtime is reduced to a minimum.

- Never leave hydraulic components or hoses open. They must be protected from contamination (including rain) at all times.
- Never open a hydraulic system when there are contaminants in the air.
- Always clean the surrounding area before opening hydraulic systems.
- Use only recommended lubricants. Improper lubricants or incompatible lubricants may be as harmful as no lubrication.
- Watch for makeshift “fixes” which can jeopardize safety as well as lead to more costly repair.

3369RT Specifications

Height, Working Maximum	38 ft 10 in	12 m
Height, Platform Maximum	32 ft 10 in	10 m
Height, Stowed Maximum Rails Up	8 ft 6 in	2.59 m
Height, Stowed Maximum Rails Folded	5 ft 11 in	1.82 m
Width, Standard Tires	5 ft 9 in	1.76 m
Length, Platform Retracted Models Without Outriggers	10 ft 6 in	3.19 m
Length, Platform Retracted Models With Outriggers	12 ft 7 in	3.84 m
Length, Platform Extended Models Without Outriggers	14 ft 9 in	4.51 m
Length, Platform Extended Models With Outriggers	15 ft 9 in	4.81 m
Platform Dimensions Platform Length × Width	9 ft 5 in × 4 ft 11 in	2.88 × 1.52 m
Platform Extension Length	4 ft 8 in	1.43 m
Maximum Load Capacity	1,000 lb	454 kg
Maximum Wind Speed	28 mph	12.5 m/s
Wheelbase	7 ft 6 in	2.29 m
Turning Radius (Outside)	15 ft 1 in	4.60 m
Turning Radius (Inside)	6 ft 11 in	2.11 m
Ground Clearance	9 ½ in	24 cm
Weight	See Serial Label (Machine weights vary with option configurations)	
Controls	Proportional	
AC Outlet In Platform	Standard	
Maximum Hydraulic Pressure (Functions)	3,500 psi	240 bar
Tire Size - Standard Tires	26 × 12-16.5	
Airborne Noise Emissions	<80 dB Maximum sound level at normal operating workstations (A-weighted)	
Gradeability	40%	
Maximum Working Slope	X-1.5°, Y-3°	
Drive Speeds		
Stowed, Maximum	3.2 mph	5.0 km/h
Platform Raised, Maximum	0.3 mph	0.45 km/h
Floor Loading Information		
Tire Load, Maximum	4,254 lb	1,930 kg
Outrigger Load, Maximum	4,254 lb	1,930 kg
Tire Contact Pressure	137 psi	945.5 kPa
Outrigger Contact Pressure	87 psi	602 kPa
Occupied Floor Pressure	178 psf	8.5 kPa

Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.

4069RT Specifications

Height, Working Maximum	46 ft 4 in	14.3 m
Height, Platform Maximum	40 ft 4 in	12.3 m
Height, Stowed Maximum Rails Up	8 ft 11 in	2.74 m
Height, Stowed Maximum Rails Folded	6 ft 5 in	1.97 m
Width, Standard Tires	5 ft 9 in	1.76 m
Length, Platform Retracted Models Without Outriggers	10 ft 6 in	3.19 m
Length, Platform Retracted Models With Outriggers	12 ft 7 in	3.84 m
Length, Platform Extended Models Without Outriggers	14 ft 9 in	4.51 m
Length, Platform Extended Models With Outriggers	15 ft 9 in	4.81 m
Platform Dimensions Platform Length × Width	9 ft 5 in × 4 ft 11 in	2.88 × 1.52 m
Platform Extension Length	4 ft 8 in	1.43 m
Maximum Load Capacity	800 lb	363 kg
Maximum Wind Speed	28 mph	12.5 m/s
Wheelbase	7 ft 6 in	2.29 m
Turning Radius (Outside)	15 ft 1 in	4.60 m
Turning Radius (Inside)	6 ft 11 in	2.11 m
Ground Clearance	9 ½ in	24 cm
Weight	See Serial Label (Machine weights vary with option configurations)	
Controls	Proportional	
AC Outlet In Platform	Standard	
Maximum Hydraulic Pressure (Functions)	3,500 psi	240 bar
Tire Size - Standard Tires	26 × 12-16.5	
Airborne Noise Emissions	<80 dB Maximum sound level at normal operating workstations (A-weighted)	
Gradeability	40%	
Maximum Working Slope	X-1.5°, Y-3°	
Drive Speeds		
Stowed, Maximum	3.2 mph	5.0 km/h
Platform Raised, Maximum	0.3 mph	0.45 km/h
Floor Loading Information		
Tire Load, Maximum	4,872 lb	2,210 kg
Outrigger Load, Maximum	4,872 lb	2,210 kg
Tire Contact Pressure	154 psi	1,065 kPa
Outrigger Contact Pressure	98 psi	678 kPa
Occupied Floor Pressure	198 psf	9.5 kPa

Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.

69RT Fault Codes

Fault Code	Display	Description	Solution
01	Internal ECU Fault	Main ECU System Fault	Replace ECU.
02	Platform ECU Fault	ECU/Platform Communication Fault	Check communications cable connections and other wiring. If that does not resolve the problem, try replacing the PCU or ECU.
08	Floating Coil Left Fault	Left Floating Coil Fault	Check the connections to the coil's terminals and make sure they are tight. If so, check the coil itself to see if it is open or shorted.
09	Floating Coil Right Fault	Right Floating Coil Fault	Check the connections to the coil's terminals and make sure they are tight. If so, check the coil itself to see if it is open or shorted.
14	Angle Sensor Fault	Angle Sensor Fault	Restart system, check the wiring, reset sensor, replace sensor.
15	Pressure Sensor Fault	Pressure Sensor Fault	Restart system, check the wiring, reset sensor, replace sensor.
20	Chassis Start Sw Fault	Chassis Engine Start Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
21	Chassis Choke Sw Fault	Chassis Engine Choke Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
22	Chassis Up Sw Fault	Chassis Up Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
23	Chassis Lift Sw Fault	Chassis Lift Enable Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
24	Chassis Down Sw Fault	Chassis Down Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
25	Left Turn Switch Fault	Platform Left Turn Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
26	Right Turn Switch Fault	Platform Right Turn Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
27	Drive Enable Sw Flt	Platform Drive Enable Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
28	Off Neutral Drive Joystick	Platform Joystick not in neutral ON at power-up	Self-Check fault, don't touch joystick or other button at power-on.
31	Platform Choke Sw Fault	Platform Engine Choke Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
32	Platform Start Sw Fault	Platform Start Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
33	Left Front Outrig Sw Flt	Platform Left Front Outrigger Enable Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
34	Right Front Outrig Sw Flt	Platform Right Front Outrigger Enable Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
35	Left Rear Outrig Sw Flt	Platform Left Rear Outrigger Enable Switch ON at power-up	Self-Check fault, don't touch other button at power-on.

36	Right Rear Outrig Sw Flt	Platform Right Rear Outrigger Enable Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
37	Auto Level Switch Fault	Platform Outrigger Auto-Level Enable Switch ON at power-up	Self-Check fault, don't touch other button at power-on.
43	Float Limit Switch Fault	Float limit Switches are both ON	Check float limit switches (work at the same time), Check wires.
49	Drive Coil 1 Fault	Channel DRIVE 1 fails	Check wiring, replace coil.
50	Drive Coil 2 Fault	Channel DRIVE 2 fails	Check wiring, replace coil.
51	Drive Coil 3 Fault	Channel DRIVE 3 fails	Check wiring, replace coil.
52	Func Prop Coil Fault	Channel PROPORTIONAL 1 fails	Check wiring, replace coil.
54	Up Coil Fault	Channel UP fails	Check wiring, replace coil.
55	Down Coil Fault	Channel DOWN fails	Check wiring, replace coil.
56	Right Turn Coil Fault	Channel Right Turn fails	Check wiring, replace coil.
57	Left Turn Coil Fault	Channel Left Turn fails	Check wiring, replace coil.
58	Brake Coil Fault	Channel Brake fails	Check wiring, replace coil.
60	Forward 1 Coil Fault	Channel FORWARD or FLOAT fails	Check wiring, replace coil.
61	Reverse 1 Coil Fault	Channel REVERSE fails	Check wiring, replace coil.
66	Low Oil Pressure	Oil Pressure Fault	Check wiring, replace pressure sensor.
67	High Coolant Temperature	Water Temperature Fault	Check wiring, replace temperature sensor.
68	Low ECU Voltage	Low Battery Voltage	Check wiring, check battery, replace battery.
69	Low Engine RPM	Low RPM Fault	Adjust the RPM between 1600 and 2600, manually.
70	High Engine RPM	High RPM Fault	Adjust the RPM between 1600 and 2600, manually.
81	Left Front Otrg Coil Flt	Channel LEFT FRONT OUTRIGGER fails	Check wiring, replace coil.
82	Left Rear Otrg Coil Flt	Channel LEFT REAR OUTRIGGER fails	Check wiring, replace coil.
83	Right Front Otrg Coil Flt	Channel RIGHT FRONT OUTRIGGER fails	Check wiring, replace coil.
84	Right Rear Otrg Coil Flt	Channel RIGHT REAR OUTRIGGER fails	Check wiring, replace coil.
85	Outrigger Ext Coil Flt	Channel EXTEND OUTRIGGER fails	Check wiring, replace coil.
86	Outrigger Ret Coil Flt	Channel RETRACT OUTRIGGER fails	Check wiring, replace coil.
95	Machine Type Fault	Wrong Machine Type Selected	Set the machine model again.
98	Platform Overload	Wrong Machine Type Selected	Remove the excess load immediately.
LL	LL Tilt	Machine Tilted Beyond Safe Limits Fault	If the machine is tilted, find a way to make it level. If the machine is level, check the wiring to the tilt sensor and then the sensor itself.

Maintenance

Observe and Obey:

- Only routine maintenance items specified in this manual shall be performed by the operator.
- Scheduled maintenance inspections shall be completed by qualified service technicians, according to the manufacturer's specifications and the requirements specified in this manual.

Pre-Delivery Preparation Report

The Pre-Delivery Preparation Report contains checklists for each type of scheduled inspection.

Make copies of the Pre-Delivery Preparation Report to use for each inspection. Store completed forms as required.

Maintenance Schedule

There are five types of maintenance inspections that must be performed according to a schedule—daily, quarterly, semi-annually, annually, and two year. The Scheduled Maintenance Procedures Section and the Maintenance Inspection Report have been divided into five subsections— A, B, C, D, and E. Use the following chart to determine which group(s) of procedures are required to perform a scheduled inspection.

Inspection	Checklist
Daily or every 8 hours	A
Quarterly or every 250 hours	A+B
Semi-annually or every 500 hours	A+B+C
Annually or every 1,000 hours	A+B+C+D
Two year or every 2,000 hours	A+B+C+D+E

Maintenance Inspection Report

The Maintenance Inspection Report contains checklists for each type of scheduled inspection.

Make copies of the Maintenance Inspection Report to use for each inspection. Maintain completed forms for a minimum of 4 years or in compliance with your employer, jobsite and governmental regulations and requirements.

Pre-Delivery Preparation Report

Fundamentals

It is the responsibility of the dealer to perform the Pre-Delivery Preparation.

The Pre-Delivery Preparation is performed prior to each delivery. The inspection is designed to discover if anything is apparently wrong with a machine before it is put into service.

A damaged or modified machine must never be used. If damage or any variation from factory delivered condition is discovered, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications and the requirements listed in this manual.

Instructions

The Pre-Delivery Preparation consists of completing the Pre-Operation Inspection, the Maintenance items and the Function Tests.

Use this form to record the results. Place a check in the appropriate box after each part is completed.

If any inspection receives an N, remove the machine from service, repair and re-inspect it. After repair, place a check in the R box.

Instructions

- Make copies of this report to use for each inspection.
- Select the appropriate checklist(s) for the type of inspection to be performed.
- Place a check in the appropriate box after each inspection procedure is completed.
- Use the step-by-step procedures in this section to learn how to perform these inspections.
- If any inspection receives an "N", tag and remove the machine from service, repair and re-inspect it. After repair, place a check in the "R' box.

Legend
Y = Yes, Completed
N = No, Unable To Complete
R = Repaired

Pre-Delivery Preparation	Y	N	R
Pre-Operation Inspection completed			
Maintenance items completed			
Function tests completed			

Maintenance Inspection Report

	Daily or 8 hours Inspection:	A
	Quarterly or 250 hours Inspection:	A+ B
	Semi-annually or 500 hours Inspection:	A+B+C
	Annually or 1,000 hours Inspection:	A+B+C+D
	Two year or 2,000 hours Inspection:	A+B+C+D+E

Checklist A	Y	N	R
A-1 Inspect Manuals and Decals			
A-2 Perform Pre-Operation Inspection			
A-3 Check Battery			
A-4 Test Oscillate System			
A-5 Check Engine Oil Level			
A-6 Check Hydraulic Oil Level			
A-7 Check Engine Coolant Level			
A-8 Perform Function Tests			
Perform After 30 Days:			
A-9 Perform Engine Maintenance			
Perform After 40 Hours:			
A-10 Perform 30 Day Service			

Checklist B	Y	N	R
B-1 Inspect the Battery			
B-2 Inspect the Electrical Wiring			
B-3 Inspect the Tires and Wheels			
B-4 Check the Oil Level in the Drive Hubs			
B-5 Test the Emergency Stop			
B-6 Test the Key Switch			
B-7 Test the Automotive-style Horn			
B-8 Test the Down Limit Switch			
B-9 Test the Up Limit Switch			
Perform After 400 Hours:			
B-10 Perform Engine Maintenance			

Checklist C	Y	N	R
C-1 Check the Down Limit Switch Height			
Perform After 800 Hours:			
C-2 Perform Engine Maintenance			

Checklist D	Y	N	R
D-1 Replace Hydraulic Tank Return Filter Element			
D-2 Perform Engine Maintenance			
D-3 Replace the Drive Hub Oil			
D-4 Test the Drive Brakes			
D-5 Test the Drive Speed - Stowed Position			
D-6 Test the Drive Speed - Raised Position			
D-7 Perform Hydraulic Oil Analysis			
D-8 Fuel and Hydraulic Tank Cap Venting System			
D-9 Test the Flashing Beacons			

Checklist E	Y	N	R
E-1 Test or Replace the Hydraulic Oil			
E-2 Perform Engine Maintenance			
E-3 Clean the Fuel Tank			
E-4 Replace the Hydraulic Tank Breather Cap			

Model	_____	Inspected By (Print)	_____
Serial Number	_____	Inspector Signature	_____
Date	_____	Inspector Title	_____
Machine Owner	_____	Inspector Company	_____

Checklist A Procedures

A-1 Inspect the Manuals and Decals

Maintaining the operator's manual in good condition is essential to safe machine operation. Manuals are included with each machine and should be stored in the container provided in the platform. An illegible or missing manual will not provide safety and operational information necessary for a safe operating condition.

In addition, maintaining all of the safety and instructional decals in good condition is mandatory for safe machine operation. Decals alert operators and personnel to the many possible hazards associated with using this machine. They also provide users with operation and maintenance information. An illegible decal will fail to alert personnel of a procedure or hazard and could result in unsafe operating conditions.

1. Check to make sure that the operator's manual is present and complete in the storage container on the platform.
2. Examine the pages of manual to be sure that they are legible and in good condition.
   - **Result:** The operator's manual is appropriate for the machine and the manual are legible and in good condition.
   - **Result:** The operator's manual is not appropriate for the machine or the manual is not in good condition or is illegible. Remove the machine from service until the manual is replaced.
3. Open the operator's manual to the decals inspection section. Carefully and thoroughly inspect all decals on the machine for legibility and damage.
   - **Result:** The machine is equipped with all required decals, and all decals are legible and in good condition.
   - **Result:** The machine is not equipped with all required decals, or one or more decals are illegible or in poor condition. Remove the machine from service until the decals are replaced.
4. Always return the manual to the storage container after use.

A-2 Perform Pre-Operation Inspection

Completing a Pre-Operation Inspection is essential to safe machine operation. The Pre-Operation Inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests. The Pre-Operation Inspection also serves to determine if routine maintenance procedures are required.

Complete information to perform this procedure is available in the appropriate operator's manual. Refer to the Operator's Manual on your machine.

A-3 Check the Battery

- New parts will be required to perform this procedure.

Proper battery condition is essential to good machine performance and operational safety. Improper fluid levels or damaged cables and connections can result in component damage and hazardous conditions.

WARNING **Electrocution hazard. Contact with hot or live circuits may result in death or serious injury. Remove all rings, watches and other jewelry.**

WARNING **Bodily injury hazard. Battery contain acid. Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.**

1. Put on protective clothing and eye wear.
2. Be sure that the battery cable connections are tight and free of corrosion.
3. Be sure that the battery hold-down bars are secure.
4. Remove the battery vent caps.
5. Check the battery acid level. If needed, replenish with distilled water to the bottom of the battery fill tube. Do not overfill.
6. Install the vent caps.

A-4 Test the Oscillate System

The oscillate system is designed so that all four tires maintain firm contact with the ground on unlevel terrain, improving traction and machine stability.

Proper axle oscillation is essential to safe machine operation. If the axle oscillation system is not operating correctly, the stability of the machine is compromised and it may tip over.

Test The Oscillate System (Stowed Position)

1. Drive the left steer tire up onto a 4 in (10 cm) high ramp.
   - **Result:** All four tires should maintain firm contact with the ground.
2. Drive the right steer tire up onto a 4 in (10 cm) high ramp.
   - **Result:** All four tires should maintain firm contact with the ground.

Note: Verify that there are no fault codes shown on ground control display.

Test The Oscillate System (Elevated Position)

1. Press the lift function select button. Raise the platform approximately 8 ft (2.4 m) from the ground.
2. Drive the left steer tire into a 4 in (10 cm) deep hole.
   - **Result:** All four tires should maintain firm contact with the ground.
3. Drive the right steer tire into a 4 in (10 cm) deep hole.
   - **Result:** All four tires should maintain firm contact with the ground.

Note: Verify that there are no fault codes shown on ground control display.

A-5 Check the Engine Oil Level

- Tools will be required to perform this procedure.

Maintaining the proper engine oil level is essential to good engine performance and service life.

Operating the machine with an improper oil level can damage engine components.

NOTICE Check the oil level with the engine off.

1. Open the engine cover.
2. Release the latches on the engine tray and fully rotate out.
3. Check the oil level dipstick. Add oil as needed.

Oil Type	5W-30
Oil Type – Cold Conditions	0W-20

A-6 Check the Hydraulic Oil Level

- New parts will be required to perform this procedure.

Maintaining the hydraulic oil at the proper level is essential to machine operation. Improper hydraulic oil levels can damage hydraulic components. Daily checks allow the inspector to identify changes in oil level that might indicate the presence of hydraulic system problems.

NOTICE Perform this procedure with the platform in the stowed position and the engine off.

1. Visually inspect the sight of hydraulic oil level from the side of the hydraulic oil tank.
   - **Result:** The hydraulic oil level should be within the top 2 in (5 cm) of the tank sight gauge.
2. Add oil if necessary. Do not overfill.

NOTICE Original Hydraulic oil specifications ISO-46.

Customers shall choose the appropriate hydraulic oil according to the ambient temperature used.
- **Example:** ISO-32 for cold temperatures.

A-7 Check the Engine Coolant Level

- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

Maintaining the engine coolant at the proper level is essential to engine service life. Improper coolant level will affect the engine's cooling capability and damage engine components. Daily checks will allow the inspector to identify changes in coolant level that might indicate cooling system problems.

Check the fluid level in the radiator. Add fluid as needed.

WARNING **Bodily injury hazard. Fluids in the radiator are under pressure and extremely hot. Use caution when removing cap and adding fluids.**

A-8 Perform Function Tests

Completing the function tests is essential to safe machine operation. Function tests are designed to discover any malfunctions before the machine is put into service. A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service.

Complete information to perform this procedure is available in the appropriate operator's manual. Refer to the Operator's Manual on your machine.

A-9 Perform Engine Maintenance

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

Engine specifications require that this procedure be performed every 30 days or monthly.

Required maintenance procedures and additional engine information is available in the engine operator's manual.

A-10 Perform 30 Day Service

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

The 30 day maintenance procedure is a one time procedure to be performed after the first 30 days or 40 hours of usage. After this interval, refer to the maintenance tables for continued scheduled maintenance.

Perform the following maintenance procedures:

- B-3 Inspect the Tires, Wheels and Castle Nut Torque
- B-4 Check the Oil Level in the Drive Hubs
- D-1 Replace the Hydraulic Tank Return Filter Element

Checklist B Procedures

B-1 Inspect the Battery

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Proper battery condition is essential to good machine performance and operational safety. Improper fluid levels or damaged cables and connections can result in component damage and hazardous conditions.

WARNING **Electrocution / burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.**

WARNING **Bodily injury hazard. Battery contain acid. Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.**

1. Put on protective clothing and eye wear.
2. Be sure that the battery cable connections are free of corrosion.

Note: Adding terminal protectors and a corrosion preventative sealant will help eliminate corrosion on the battery terminals and cables.

3. Be sure that the battery retainers and cable connections are tight.
4. Fully charge the battery. Allow the battery to rest 24 hours before performing this procedure to allow the battery cells to equalize.
5. Remove the battery vent caps and check the specific gravity of each battery cell with a hydrometer. Note the results.
6. Check the ambient air temperature and adjust the specific gravity reading for each cell as follows:
   - Add 0.004 to the reading of each cell for every 10°F (5.5°C) above 80°F (26.7°C).
   - Subtract 0.004 from the reading of each cell for every 10°F (5.5°C) below 80°F (26.7°C).
   - **Result:** All battery cells display an adjusted specific gravity of 1 .277 or higher. The battery is fully charged. Proceed to step 10.
   - **Result:** One or more battery cells display a specific gravity of 1.217 or below. Proceed to step 7.
7. Perform an equalizing charge OR fully charge the battery and allow the battery to rest at least 6 hours.
8. Remove the battery vent caps and check the specific gravity of each battery cell with a hydrometer. Note the results.
9. Check the ambient air temperature and adjust the specific gravity reading for each cell as follows:
   - Add 0.004 to the reading of each cell for every 10°F (5.5°C) above 80°F (26.7°C).
   - Subtract 0.004 from the reading of each cell for every 10°F (5.5°C) below 80°F (26.7°C).
   - **Result:** All battery cells display a specific gravity of 1 .277 or greater. The battery is fully

charged. Proceed to step 10.
- **Result:** One or more battery cells display a specific gravity from 1.269 to 1.218. The battery is still usable, but at a lower performance so will need to be recharged more often. Proceed to step 11.
- **Result:** One or more battery cells display a specific gravity from 1.217 to 1.173. The battery is approaching the end of its life. Proceed to step 11.
- **Result:** The difference in specific gravity readings between cells is greater than 0.1 OR the specific gravity of one or more cells is less than 1.172 or less. Replace the battery.

10. Check the battery acid level. If needed, replenish with distilled water to $^{1}/_{8}$ in (3 mm) below the bottom of the battery fill tube. Do not overfill.
11. Install the vent caps and neutralize any electrolyte that may have spilled.

B-2 Inspect the Electrical Wiring

- Tools will be required to perform this procedure.

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Maintaining electrical wiring in good condition is essential to safe operation and good machine performance. Failure to find and replace burnt, chafed, corroded or pinched wires could result in unsafe operating conditions and may cause component damage.

WARNING **Electrocution / burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.**

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1. Inspect the following areas for burnt, chafed, corroded and loose wires:
   - Ground control panel
   - Hydraulic tray
   - Engine tray
   - Scissor arms
   - Platform controls
2. Inspect for a liberal coating of dielectric grease in the following locations:
   - Between the ECM and platform controls
   - All wire harness connectors
   - Level sensor
3. Turn the key switch to ground control and turn the ground red Emergency Stop button clockwise to the on position pull out the platform red Emergency Stop button to the on position.
4. Start the engine and raise the platform approximately 10 ft (3 m) from the ground.
5. Lift the safety arm, move it to the center of the scissor arm and rotate up to a vertical position.
6. Lower the platform onto the safety arm.

WARNING **Crushing hazard. Keep hands clear of the safety arm when lowering the platform.**

---

7. Inspect the center chassis area and scissor arms for burnt, chafed and pinched cables.
8. Inspect the following areas for burnt, chafed, corroded, pinched and loose wires:

- ECU to platform controls
- Power to platform wiring

9. Raise the platform and return the safety arm to the stowed position.
10. Lower the platform to the stowed position and turn the machine off.

B-3 Inspect the Tires and Wheels (including castle nut torque)

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Maintaining the tires and wheels in good condition is essential to safe operation and good performance. Tire and/or wheel failure could result in a machine tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.

1. Check the tire surface and sidewalls for cuts, cracks, punctures and unusual wear.
2. Check each wheel for damage, bends and cracks.
3. Remove the castle nut lock plate or cotter pin and check each nut for proper torque

Castle Nut Torque, Dry	300 ft lbs	406.7 Nm
Castle Nut Torque, Lubricated	225 ft lbs	305 Nm

Note: Always replace the cotter pin with a new one when removing the castle nut or checking the torque of the castle nut.

4. Check each lug bolt for proper torque.
5. Install the castle nut lock plate using a new lock washer OR install a new cotter pin and secure.

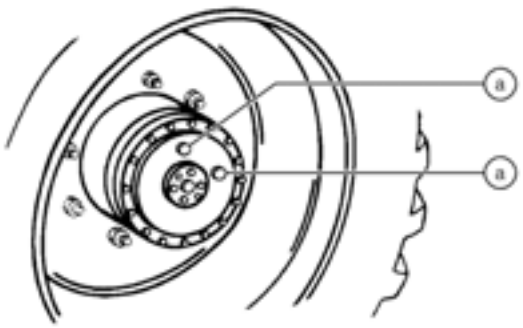
B-4 Check the Oil Level in the Drive Hubs

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes.

Failure to maintain proper drive hub oil levels may cause the machine to perform poorly and continued use may cause component damage.

1. Drive the machine to rotate the hub until the plugs are located one on top and the other at 90 degrees.



2. Remove the plug located at 90 degrees and check the oil level.
   - **Result:** The oil level should be even with the bottom of the side plug hole.
3. If necessary, remove the top plug and add oil until the oil level is even with the bottom of the side plug hole.
4. Apply pipe thread sealant to the plug(s), and then install the plug(s) in the drive hub.
5. Repeat this procedure for each drive hub.

NOTICE Original oil specifications EP-90.

B-5 Test the Emergency Stop

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

A properly functioning Emergency Stop is essential for safe machine operation. An improperly operating red Emergency Stop button will fail to shut off power and stop all machine functions, resulting in a hazardous situation.

As a safety feature, selecting and operating the ground controls will override the platform controls, except the platform red Emergency Stop button.

1. Start the engine from ground controls.
2. Push in the red Emergency Stop button at the ground controls to the off position.
   - **Result:** The engine should shut off and no machine functions should operate.
3. Start the engine from platform controls.
4. Push in the red Emergency Stop button to the off position.
   - **Result:** The engine should shut off and no machine functions should operate.

Note: The red Emergency Stop button at the ground controls will stop all machine operation, even if the key switch is switched to platform control.

B-6 Test the Key Switch

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Proper key switch action and response is essential to safe machine operation. The machine can be operated from the ground or platform controls and the activation of one or the other is accomplished with the key switch. Failure of the key switch to activate the appropriate control panel could cause a hazardous operating situation.

Perform this procedure from the ground using the platform controls. Do not stand in the platform.

1. Turn the ground red Emergency Stop button clockwise to the on position. Pull out the platform red Emergency Stop button to the on position.
2. Turn the key switch to ground controls and start the engine from ground controls.
3. Check any machine function from the platform controls.
   - **Result:** The machine functions should not operate.
4. Turn the key switch to platform controls and start the engine from platform controls.

5. Check the machine functions from the ground controls.
   - **Result:** The machine functions should not operate.
6. Turn the key switch to the off position.
   - **Result:** The engine should stop and no functions should operate.

B-7 Test the Automotive-style Horn

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

The horn is activated at the platform controls and sounds at the ground as a warning to ground personnel. An improperly functioning horn will prevent the operator from alerting ground personnel of hazards or unsafe conditions.

1. Start the engine from platform controls.
2. Push down the horn button at the platform controls.
   - **Result:** The horn should sound.

Note: If necessary, the horn can be adjusted to obtain the loudest volume by turning the adjustment screw near the wire terminals on the horn.

B-8 Test the Down Limit Switch

- Tools will be required to perform this procedure.

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Maintaining the limit switches is essential to safe operation and good machine performance. Operating the machine with a faulty limit switch could result in reduced machine performance and a potentially unsafe operating condition.

Perform these procedures with the machine on a firm, level surface that is free of obstructions.

1. Remove the platform controls from the platform.
2. Start the engine from the platform controls.
3. Press the engine high speed idle select button.
   - **Result:** The light will turn on. The machine is functioning properly.
   - **Result:** The light will turn off, replace the down limit switch.
4. Press the Lift function select button.
5. Raise the platform 13 ft (4 m).
6. Lift the safety arm, move it to the center of the scissor arm and rotate up to a vertical position.
7. Lower the platform until the safety arm rests securely on the link. Keep clear of the safety arm when lowering the platform.

WARNING **Crushing hazard. Keep hands clear of the safety arm when lowering the platform.**

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8. Press the roller arm of the limit switch. Activate the switch contacts.
   - **Result:** The engine high speed idle select button light will turn off when press the drive speed

button. The machine is functioning properly.
- **Result:** The engine high speed idle select button light will turn on when press the drive speed button. The machine is functioning properly.

9. Raise the platform and return the safety arm to the stowed position.
10. Lower the platform to the stowed position.

B-9 Test the Up Limit Switch

- Tools will be required to perform this procedure.

MEC requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Maintaining the limit switches is essential to safe operation and good machine performance.

Operating the machine with a faulty limit switch could result in reduced machine performance and a potentially unsafe operating condition.

Perform these procedures with the machine on a firm, level surface that is free of obstructions.

1. Start the engine from the ground controls.
2. Raise the platform approximately 13 ft (4 m) from the ground controls.
3. Lift the safety arm, move it to the center of the scissor arm and rotate up to a vertical position.
4. Lower the platform until the safety arm rests securely on the link. Keep clear of the safety arm when lowering the platform.

WARNING **Crushing hazard. Keep hands clear of the safety arm when lowering the platform.**

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5. While raising the platform from the ground controls, push in the roller of the up limit switch to activate the limit switch.
   - **Result:** The platform stops rising. The machine is functioning properly.
   - **Result:** The platform continues to rise. Adjust or replace the up limit switch.
6. Raise the platform and rotate the safety arm to the home position.
7. Lower the platform to the stowed position.

B-10 Perform Engine Maintenance

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

Engine specifications require that this procedure be performed every 400 hours.

Required maintenance procedures and additional engine information is available in the engine operator’s manual.

Checklist C Procedures

C-1 Check the Down Limit Switch Height

1. Turn the key switch to platform controls. Start the engine.
2. Raise the platform approximately 10 ft (3 m).
3. Lower the platform until the down limit switch activates and the platform stops lowering.
4. Push in the red Emergency Stop button to the off position.
5. Measure the distance between the working surface and the platform deck.

3369	5 ft 10 in to 6 ft 6 in	1.8 to 2.0 m
4069	6 ft 6 in to 7 ft 3 in	2.0 to 2.2 m

C-2 Perform Engine Maintenance

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

Engine specifications require that this procedure be performed every 800 hours.

Required maintenance procedures and additional engine information is available in the engine operator’s manual.

Checklist D Procedures

D-1 Replace the Hydraulic Tank Return Filter Element

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

MEC requires that this procedure be performed every 1,000 hours or annually, whichever comes first.

Replacement of the hydraulic tank return filter is essential for good machine performance and service life. A dirty or clogged filter may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require that the filter be replaced more often.

CAUTION

Bodily injury hazard. Beware of hot oil. Contact with hot oil may cause severe burns.

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1. Remove the filter with an oil filter wrench. Clean the area where the hydraulic oil filter meets the filter head.

WARNING

Bodily injury hazard. Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.

Note: The hydraulic filter is mounted on the hydraulic tank.

2. Apply a thin layer of fresh oil to the new oil filter gasket.
3. Install the new filter and tighten it securely by hand.
4. Use a permanent ink marker to write the date and number of hours from the hour meter on the filter
5. Clean up any oil that may have spilled during the replacement procedure.
6. Turn the ground red Emergency Stop button clockwise to the on position. Pull out the platform red Emergency Stop button to the on position. Start the engine.
7. Raise the platform approximately 3 ft (1 m).
8. Inspect the filter and related components to be sure that there are no leaks.

D-2 Perform Engine Maintenance

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

Engine specifications require that this procedure be performed every 1,000 hours or annually, whichever comes first.

Required maintenance procedures and additional engine information is available in the engine operator's manual.

D-3 Replace the Drive Hub Oil

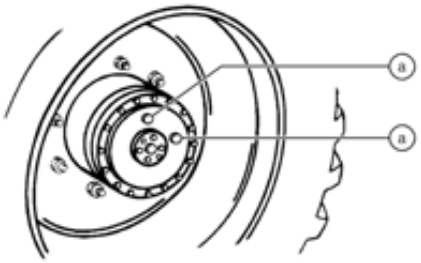
- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- Dealer service will be required to perform this procedure

MEC specifications require that this procedure be performed every 1,000 hours or annually, whichever comes first.

Replacing the drive hub oil is essential for good machine performance and service life. Failure to replace the drive hub oil at yearly intervals may cause the machine to perform poorly and continued use may cause component damage.

1. Select the drive hub to be serviced. Drive the machine until one of the two plugs is at the lowest point.
2. Remove both plugs and drain the oil into a suitable container.

3. Drive the machine until one of the two plugs is at the highest point.



4. Fill the hub until the oil level is even with the bottom of the lowest plug hole.
5. Install the plugs into the drive hub.
6. Repeat this procedure for each drive hub.

D-4 Test the Drive Brakes

- Tools will be required to perform this procedure.

MEC requires that this procedure be performed every 1,000 hours or yearly, whichever comes first.

Proper brake action is essential to safe machine operation. The drive brake function should operate smoothly, free of hesitation, jerking and unusual noise. Hydraulically-released individual wheel brakes can appear to operate normally when not fully operational.

Perform this procedure with the machine on a firm level surface that is free of obstructions, with the platform extension deck fully retracted and the platform in the stowed position.

1. Mark a test line on the ground for reference.
2. Start the engine from platform controls.
3. Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the test line.
4. Slowly move the joystick in the direction indicated by the blue arrow on the control panel until the machine begins to move, then return the joystick to the center position.

- **Result:** The machine should move in the direction that the blue arrow points on the control panel, then come to a quick stop.

5. Slowly move the joystick in the direction indicated by the yellow arrow on the control panel until the machine begins to move, then return the joystick to the center position.
   - **Result:** The machine should move in the direction that the yellow arrow points on the control panel, then come to a quick stop.
6. Bring the machine to maximum drive speed before reaching the start line. Release the function enable switch on the joystick or release the joystick when your reference point on the machine crosses the test line.
7. Measure the distance between the test line and your machine reference point.

Braking Distance, Maximum		
High range on paved surface	3 ft 3 in	1 m

Note: The brakes must be able to hold the machine on any slope it is able to climb.

D-5 Test the Drive Speed - Stowed Position

- Tools will be required to perform this procedure.

MEC requires that this procedure be performed every 1,000 hours or yearly, whichever comes first.

Proper drive functions are essential to safe machine operation. The drive function should respond quickly and smoothly to operator control. Drive performance should also be free of hesitation, jerking and unusual noise over the entire proportionally controlled speed range.

Perform this procedure with the machine on a firm, level surface that is free of obstructions.

1. Create start and finish lines by marking two lines on the ground 40 ft (12.2 m) apart.
2. Turn the key switch to platform controls and Turn the ground red Emergency Stop button clockwise to the on position. Pull out the platform red Emergency Stop button to the on position.
3. Start the engine from the platform controls.
4. Lower the platform to the stowed position.
5. Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the start and finish lines.
6. Bring the machine to maximum reverse drive speed before reaching the start line. Begin timing when your reference point on the machine crosses the start line.
7. Continue at full speed and note the time when your reference point on the machine passes over the finish line. The time should be less than 8.8 sec.

D-6 Test the Drive Speed - Raised Position

- Tools will be required to perform this procedure.

MEC requires that this procedure be performed every 1,000 hours or yearly, whichever comes first.

Proper drive functions are essential to safe machine operation. The drive function should respond quickly and smoothly to operator control. Drive performance should also be free of hesitation, jerking and unusual noise over the entire proportionally controlled speed range.

Perform this procedure with the machine on a firm, level surface that is free of obstructions.

1. Create start and finish lines by marking two lines on the ground 40 ft (12.2 m) apart.
2. Turn the key switch to platform controls and turn the ground red Emergency Stop button clockwise to the on position. Pull out the platform red Emergency Stop button to the on position.
3. Start the engine from the platform controls.
4. Raise the platform approximately 8 ft (2.4 m) from the ground.
5. Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the start and finish lines.
6. Bring the machine to top drive speed before reaching the start line. Begin timing when your reference point on the machine crosses the start line.
7. Continue at full speed and note the time when your reference point on the machine passes over the finish line. The time should be 80 to 90 seconds.

D-7 Perform Hydraulic Oil Analysis

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- Dealer service will be required to perform this procedure.

MEC requires that this procedure be performed every 1,000 hours or yearly, whichever comes first.

Replacement or testing of the hydraulic oil is essential for good machine performance and service life. Dirty oil may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require oil changes to be performed more often.

Before replacing the hydraulic oil, the oil may be tested by an oil distributor for specific levels of contamination to verify that changing the oil is necessary.

If the hydraulic oil is not replaced at the two year inspection, replace the oil when it fails the test. See E-1, Test or Replace the Hydraulic Oil.

D-8 Inspect the Fuel and Hydraulic Tank Cap Venting System

- Tools will be required to perform this procedure.

MEC requires that this procedure be performed yearly or every 1,000 hours, whichever comes first. Perform this procedure more often if dusty conditions exist.

A free-breathing hydraulic tank cap is essential for good machine performance and service life. A dirty or clogged cap may cause the machine to perform poorly. Extremely dirty conditions may require that the cap be inspected more often.

DANGER

Explosion and fire hazard. Engine fuels are combustible. Perform this procedure in an open, well-ventilated area away from heaters, sparks, flames and lighted tobacco. Always have an approved fire extinguisher within easy reach.

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1. Remove the breather cap from the fuel tank.

2. Check for proper venting.
   - **Result:** Air passes through the breather cap. Proceed to step 4.
   - **Result:** If air does not pass through the cap, clean or replace the cap. Proceed to step 3.

Note: When checking for positive tank cap venting, air should pass freely through the cap only in one direction from the tank.

3. Using a mild solvent, carefully wash the cap venting system. Dry using low pressure compressed air. Repeat this procedure beginning with step 2.
4. Install the fuel tank cap onto the fuel tank.
5. Remove the breather cap from the hydraulic tank.
6. Check for proper venting.
   - **Result:** Air passes through the fuel tank cap. Proceed to step 8.
   - **Result:** If air does not pass through the cap, clean or replace the cap. Proceed to step 7.

Note: When checking for positive tank cap venting, air should pass freely through the cap.

7. Using a mild solvent, carefully wash the cap venting system. Dry using low pressure compressed air. Repeat this procedure beginning with step 6.
8. Install the breather cap onto the hydraulic tank.

D-9 Test the Flashing Beacons

MEC requires that this procedure be performed every 1,000 hours or yearly, whichever comes first.

Flashing beacons are used to alert operators and ground personnel of machine proximity and motion. The flashing beacons are located on both sides of the machine.

1. Turn the ground red Emergency Stop button clockwise to the on position. Pull out the platform red Emergency Stop button to the on position.
2. Turn the key switch to ground controls and start the engine from ground controls.
   - **Result:** The beacons should flash.
3. Turn the key switch to platform controls and start the engine from platform controls.
   - **Result:** The beacons should flash.

Checklist E Procedure

E-1 Test or Replace the Hydraulic Oil

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

MEC requires that this procedure be performed every 2,000 hours or every two years, whichever comes first.

Replacement or testing of the hydraulic oil is essential for good machine performance and service life. Dirty oil and suction strainers may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require oil changes to be performed more often.

Note: Before replacing the hydraulic oil, the oil may be tested by an oil distributor for specific levels of contamination to verify that changing the oil is necessary. If the hydraulic oil is not replaced at the two year inspection, test the oil annually. Replace the oil when it fails the test.

Note: When removing a hose assembly or fitting, the O-Ring (if equipped) on the fitting and/or the hose end must be replaced. All connections must be torqued to specification during installation.

1. Push in the red Emergency Stop button to the off position.
2. Tag and disconnect the harnesses from the ground control box.
3. Remove the ground control box retaining fasteners and set aside. Remove the ground control box.
4. Locate the tank cover plate. Remove the tank cover plate mounting fasteners and remove the cover.
5. Place a drain pan or other suitable container under the hydraulic tank.
6. Remove the drain plug from the hydraulic tank and completely drain the tank.

WARNING

Bodily injury hazard. Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.

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7. Tag, disconnect and plug the suction hose from the hydraulic tank. Cap the fitting.
8. Tag, disconnect and plug the return hose at the return filter. Cap the fitting on the filter.
9. Remove the return filter and head assembly from the tank. Cap and plug the fittings.
10. Loosen the tank strap retaining fastener in front of the tank. Move the strap to the side.
11. Remove the hydraulic tank from the machine.
12. Remove the suction strainer and clean using a mild solvent or replace.
13. Clean the inside of the hydraulic tank using a mild solvent.
14. Install the drain plug using thread sealer on the threads.
15. Install the suction strainer using thread sealer on the threads.
16. Install the hydraulic tank onto the machine.
17. Secure the tank with the tank strap. Do not over tighten.
18. Install the suction hose onto the tank.

19. Install the return filter and head assembly.

Note: Replace the return filter.

20. Install the return hose to the return filter.
21. Fill the tank with hydraulic oil until the fluid is within the top 2 in (5 cm) of the sight gauge. Do not overfill.
22. Clean up any oil that may have spilled. Properly discard the oil.
23. Operate all machine functions through a full cycle and check for leaks.
24. Check the oil level in the tank and add if needed.
25. Install the tank cover plate and install the tank cover plate mounting fasteners.

E-2 Perform Engine Maintenance

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

MEC requires that this procedure be performed every 2,000 hours or every two years, whichever comes first.

Required maintenance procedures and additional engine information is available in the engine operator's manual.

E-3 Clean the Fuel Tank

- Tools will be required to perform this procedure.
- New parts will be required to perform this procedure.
- A cold engine is required before performing this procedure.

MEC requires that this procedure be performed every 2,000 hours or 2 years, whichever comes first.

Removing sediment from the fuel tank is essential to good engine performance and service life. A dirty fuel tank may cause the fuel filter to clog prematurely resulting in poor engine performance and possible component damage.

DANGER

Explosion and fire hazard. Engine fuels are combustible. Perform this procedure in an open, well-ventilated area away from heaters, sparks, flames and lighted tobacco. Always have an approved fire extinguisher within easy reach.

Note: Immediately clean up any fuel that may have spilled during this procedure.

1. Using an approved hand-operated pump, drain the fuel tank into a suitable container.

DANGER **Explosion and fire hazard. When transferring fuel, connect a grounding wire between the machine and pump or container.**

Note: Be sure to only use a hand operated pump suitable for use with gasoline and/or diesel fuel.

2. Tag, plug and remove the fuel lines from the side of the tank.
3. Loosen the tank strap retaining fastener in front of the tank. Move the strap off to the side.
4. Remove the tank from the machine.
5. Tag and remove the fuel fittings from the fuel tank.

Note: Note the orientation of the fuel fittings before removing so when the fittings are installed they will be in the correct position.

6. Rinse out the inside of the tank using a mild solvent.
7. Install the fittings (removed in step 5) into the side of the tank.
8. Install the tank onto the machine.
9. Attach the fuel lines to the tank. Tighten the clamps.
10. Secure the tank with the tank strap. Tighten the retaining fastener. Do not over tighten.

E-4 Replace the Hydraulic Tank Breather Cap

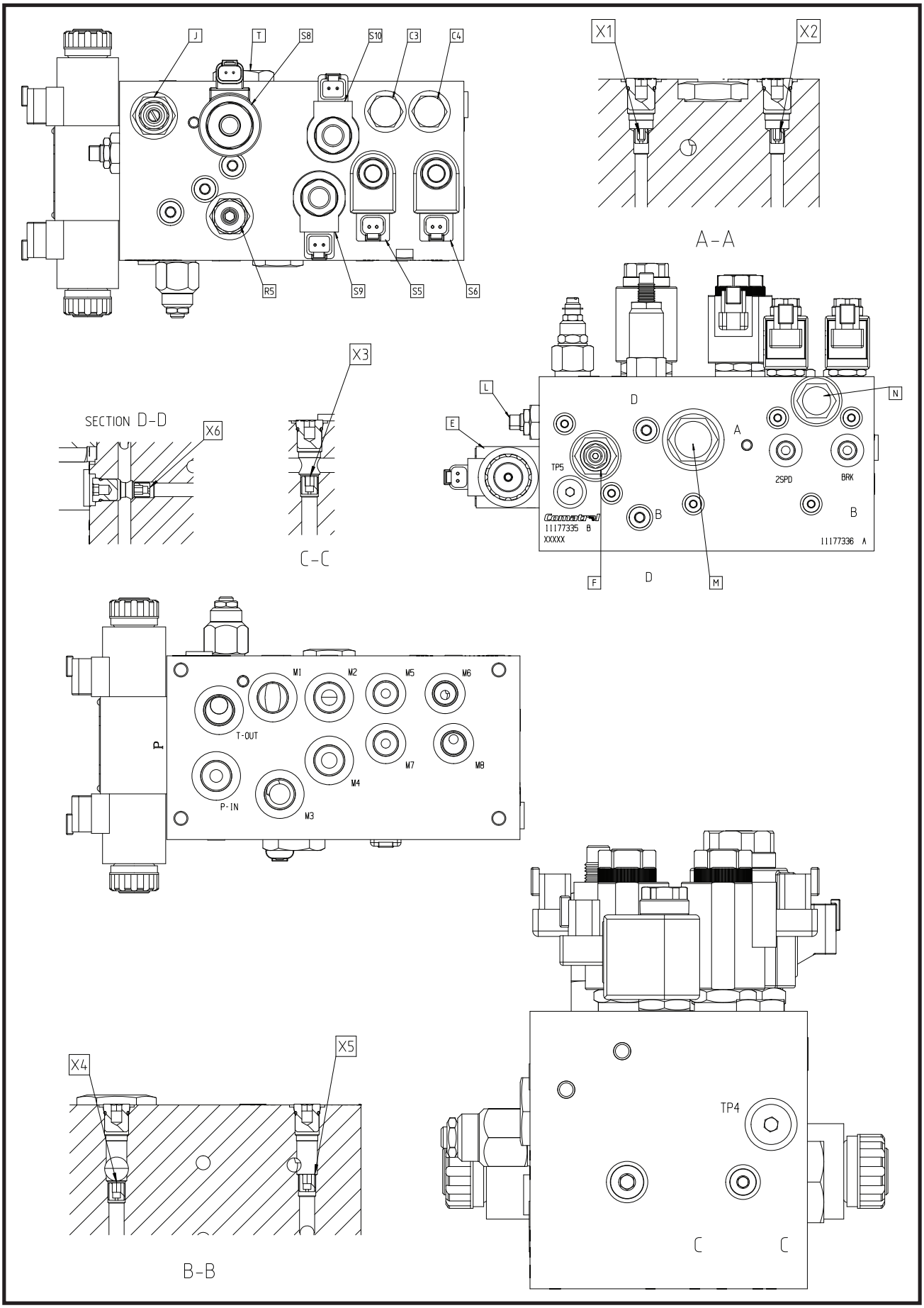
- New parts will be required to perform this procedure.

MEC requires that this procedure be performed every 2,000 hours or 2 years, whichever comes first.

The hydraulic tank is a vented-type tank. The breather cap has an internal air filter that can become clogged or, over time, can deteriorate. If the breather cap is faulty or improperly installed, impurities can enter the hydraulic system which may cause component damage. Extremely dirty conditions may require that the cap be inspected more often.

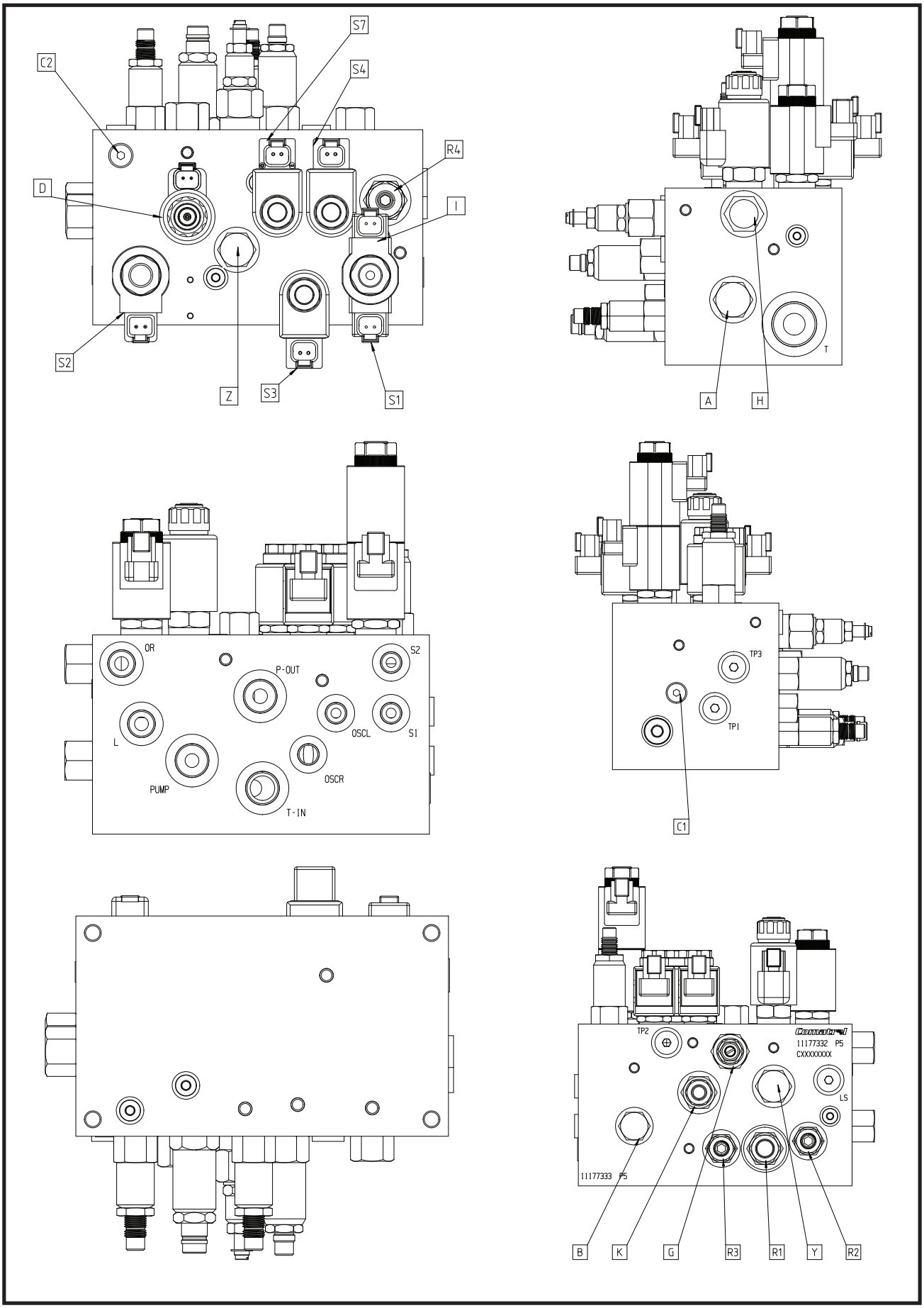
1. Remove and discard the hydraulic tank breather cap.
2. Install a new cap onto the tank.

69RT Models - Drive Manifold



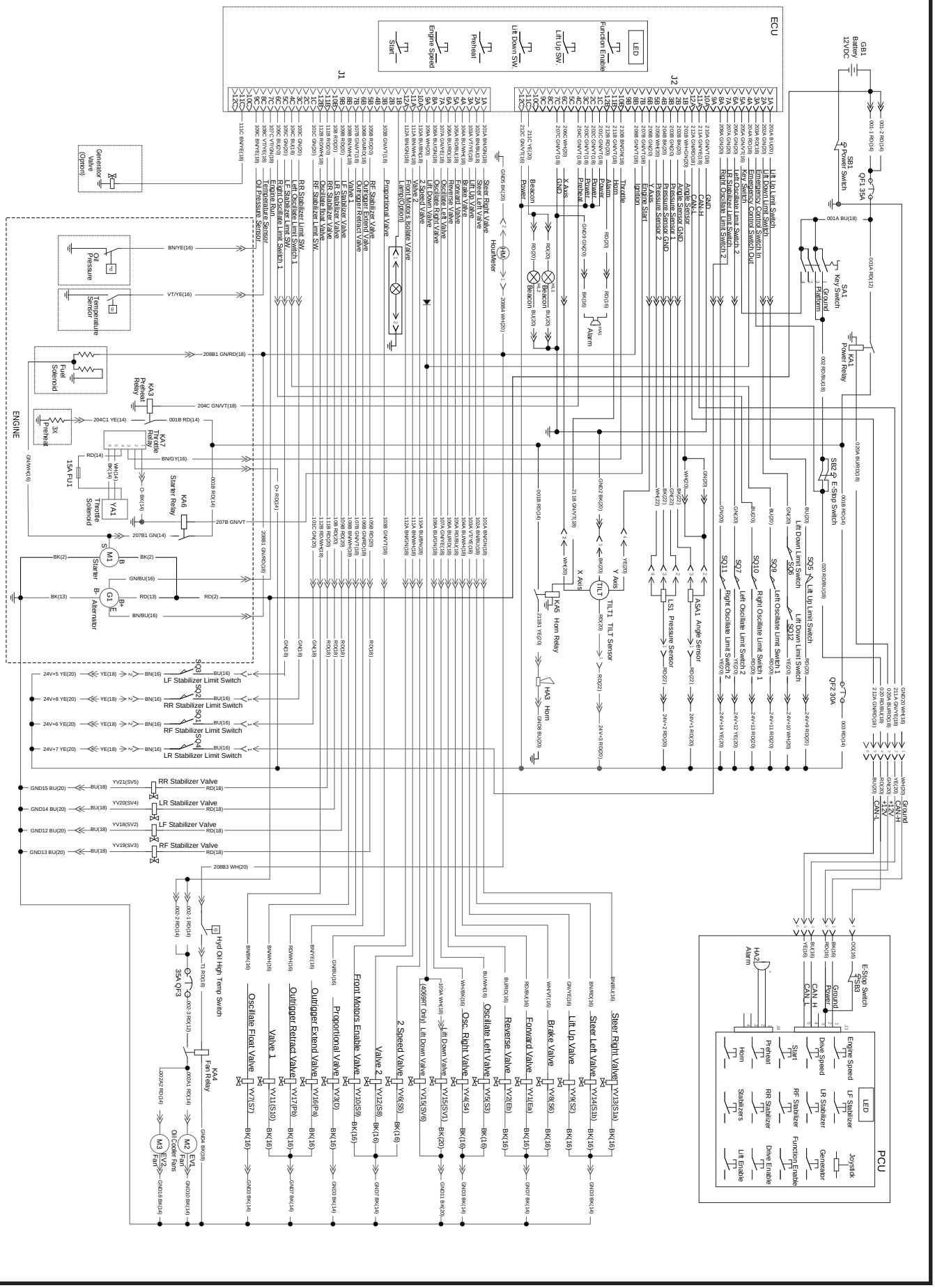
Identification	Description	Function.
T	Flow Divider/Combiner	Controls flow to Front or Rear Drive depending on wheel slip
C3	Check Valve	Prevents backflow from 2-Speed Valve
C4	Check Valve	Prevents backflow from Brake Valve
L	Variable Orifice	Allows bypass of Drive Circuit - remains closed
N	Flow Divider/Combiner	Controls flow to R or L Front Drive depending on wheel slip
M	Flow Divider/Combiner	Controls flow to R or L Rear Drive depending on wheel slip
R5	Cross Port Relief Valve	Controls pressure in Drive Circuit
E	Solenoid Valve	Controls flow to directionally to Drive Circuit
X4	Fixed Orifice	Allows controlled bypass of Valve M
X5	Fixed Orifice	Allows controlled bypass of Valve N
X1	Fixed Orifice	Controls flow to 2-Speed Shift
X2	Fixed Orifice	Controls flow to Brake Release
X3	Fixed Orifice	Allows controlled bypass of Valve T
X6	Fixed Orifice	Restricts flow to Counterbalance Valve Pilot Port
S5	Solenoid valve	Provides flow to 2-Speed Shift
S6	Solenoid Valve	Provides flow to Brake Release
S10	Solenoid Valve	Bypasses Front Drive Motors when valve S9 is energized
S9	Solenoid Valve	Stops flow to Front Drive Motors in high speed
J	Pressure Reducing	Controls pressure to Brake and 2-Speed Shift
F	Counterbalance Valve	Control downhill speed during Drive
S8	Solenoid Valve	Allows bypass of Valve T in high speed operation

69RT Models - Function Manifold

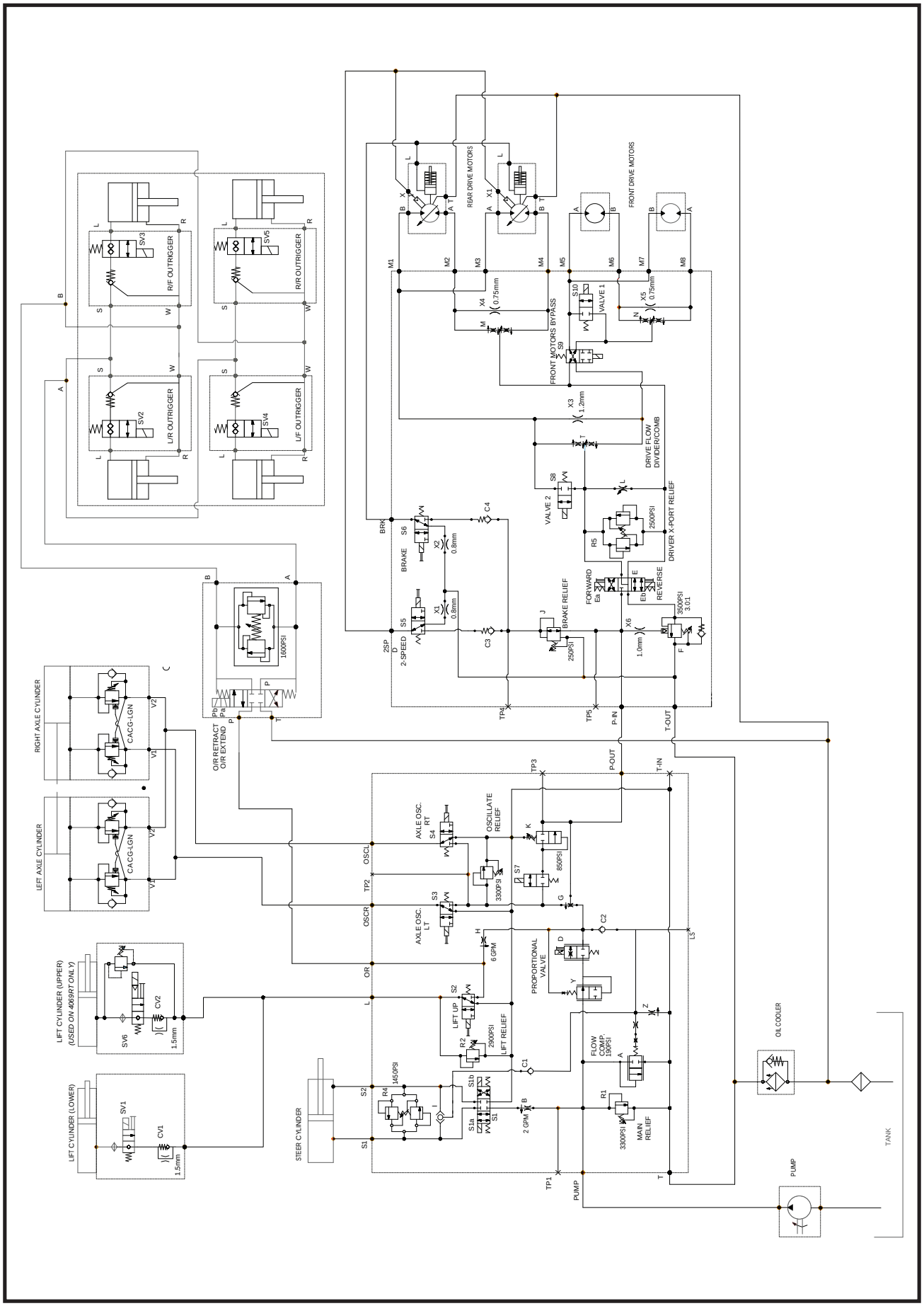


Identification	Description	Function.
C1	Check Valve	Prevents backflow to Steer Load Sense Circuit
C2	Check Valve	Prevents backflow to circuit when LS port is used
I	Shuttle Valve	Provides load sense signal to Valve A
A	Flow Compensator	Controls flow in Load Sense Circuit
R1	Relief Valve	Main System Pressure Relief
H	Flow Regulator	Reduces flow to Outriggers, Lift
R2	Relief Valve	Limits pressure to Lift Circuit
R3	Relief Valve	Limits pressure to Axle Circuit
Z	Flow Regulator	Reduces flow in Load Sense (Pilot) Circuit
R4	Cross-Port Relief Valve	Controls pressure on both Steering Circuits
B	Flow Regulator	Reduces flow to Steering Circuit
K	Sequence Valve	Limits pressure to Axle Circuit when S7 energized
S7	Solenoid Valve	Bypasses flow to Axle Circuit when elevated
S3	Solenoid Valve	Controls flow to Left Axle Cylinder
S4	Solenoid Valve	Controls flow to Right Axle Cylinder
S2	Solenoid Valve	Controls flow to Lift Cylinder
S1	Solenoid Valve	Controls flow directionally to Steer
G	Priority Flow Valve	Control flow with priority to Axle Circuit
Y	Flow Compensator	Controls flow through Valve D referencing pressure
D	Proportional Valve	Controls flow to all function

69RT Electrical Schematic



69RT Hydraulic Schematic



Parts Introduction

This Parts sections consists of illustrated parts sections and is designed to provide you, the customer, with illustrations and the list of associated parts needed to properly maintain the MEC self-propelled aerial work platform. When used in conjunction with the Service section in this manual and the Operator's Manual (provided separately), this manual will assist you in making necessary adjustments and repairs, and identifying and ordering the correct replacement parts.

All parts represented here are manufactured and supplied in accordance with MEC quality standards.

We recommend that you use genuine MEC parts to ensure proper operation and reliable performance.

To obtain maximum benefits from your MEC Aerial Work Platforms, always follow the proper operating and maintenance procedures. Only trained authorized personnel should be allowed to operate or service this machine. Service personnel should read and study the Operator's, and the Service and Parts Manuals in order to gain a thorough understanding of the unit prior to making any repairs.

Steer Axle Assembly Installation

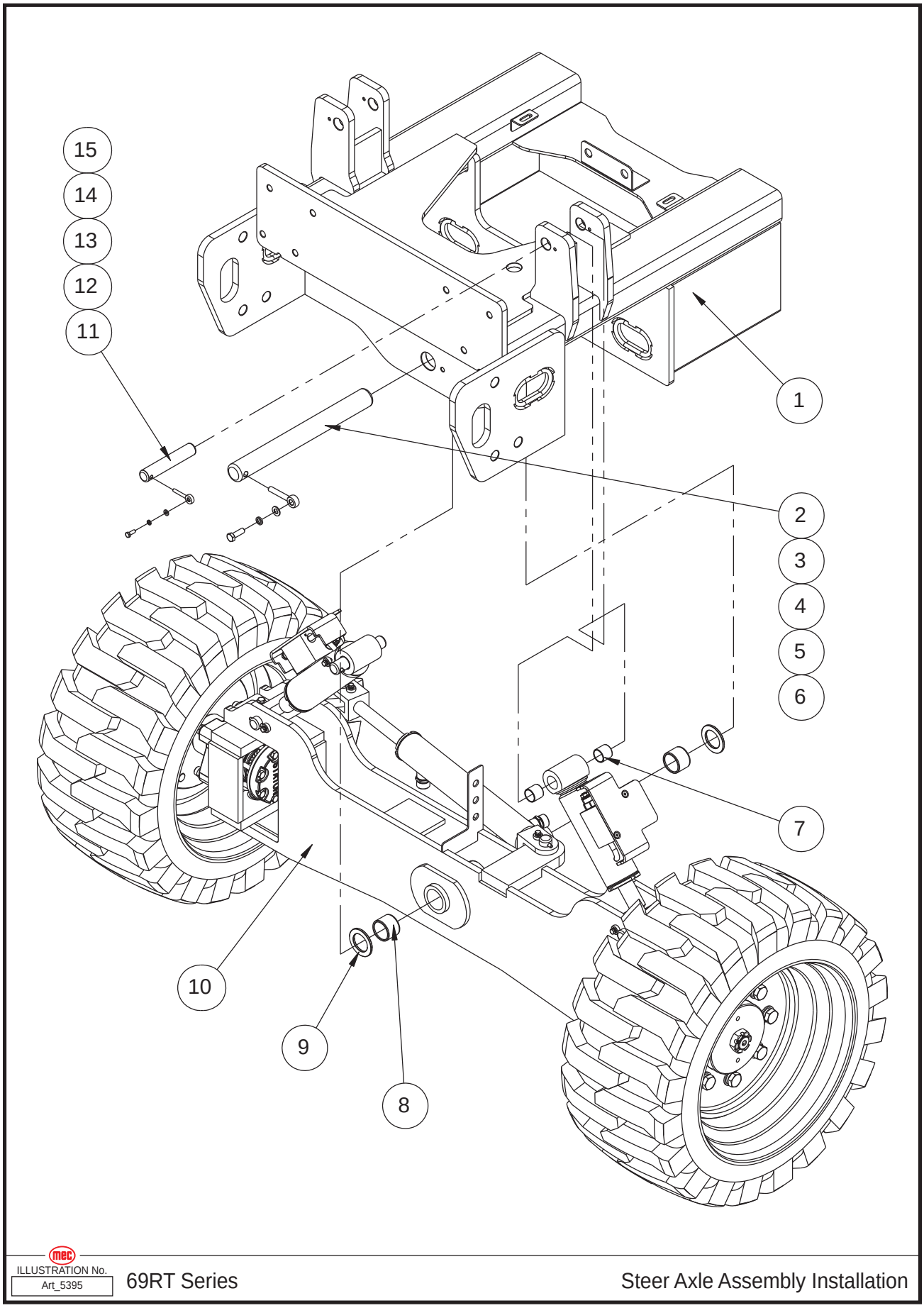


ILLUSTRATION No. Art_5395 69RT Series Steer Axle Assembly Installation

Item	Part Number	Description	Qty.
1	43006	Frame Weldment	1
2	43007	Pin	1
3	41431	Pin	1
4	53054	WSHR M10 Spring Washer	1
5	50002	WSHR M10 Standard Flat	1
6	50034	HHCS M10 × 30	1
7	41287	Bearing	4
8	41105	Bearing	2
9	43008	Washer	4
10	REF	Steer Axle Assembly (Refer To Page 39)	1
11	43009	Pin	2
12	42449	Pin	2
13	50000	WSHR M6 Standard Flat	2
14	53046	WSHR M6 Spring Washer	2
15	50445	HHCS M6 × 16	2

REF - Reference

Steer Axle Assembly

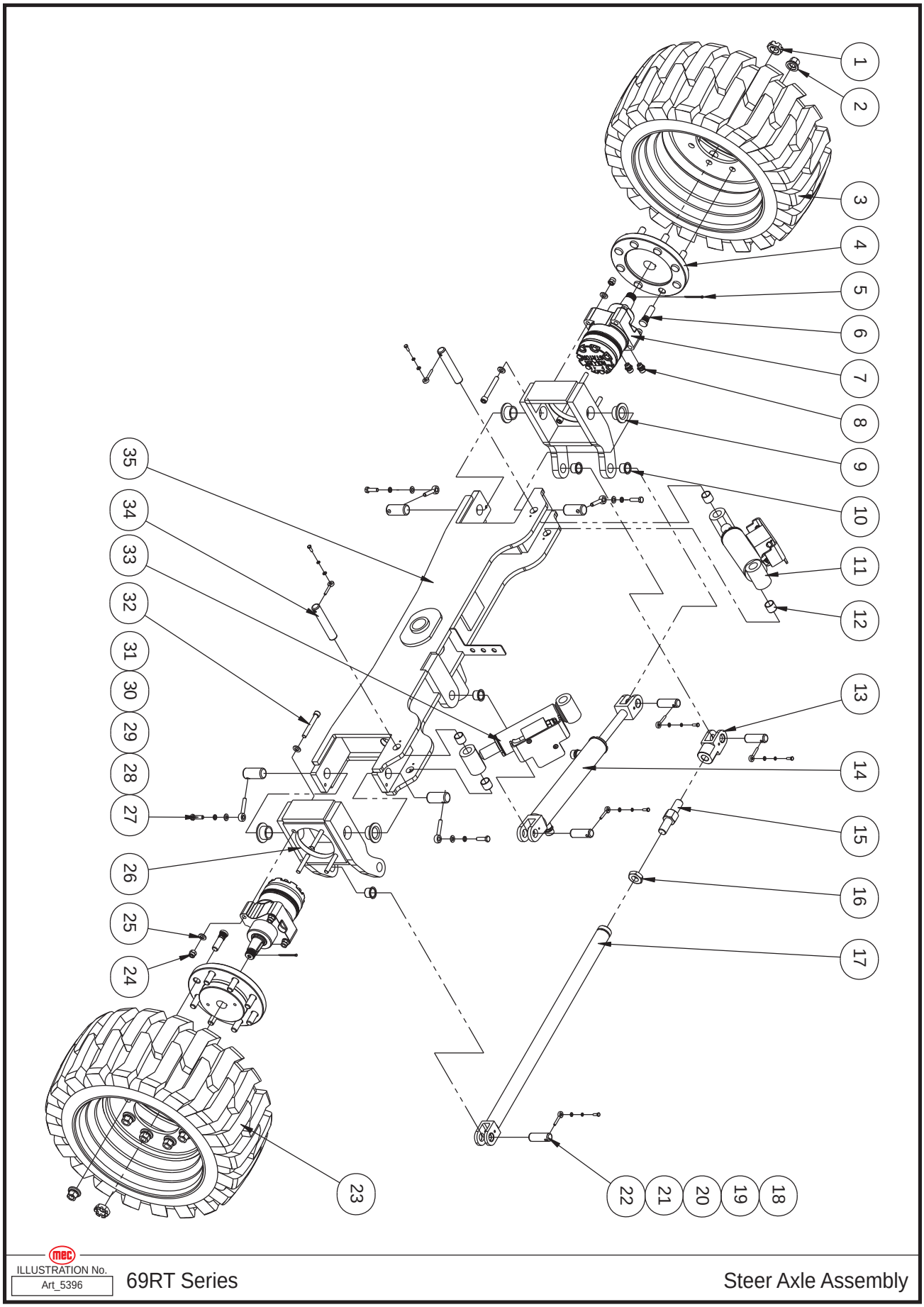


ILLUSTRATION No. Art_5396 69RT Series Steer Axle Assembly

Item	Part Number	Description	Qty.
1	53212	NLUG 1 1/8-18	2
2	53213	NNYL Flange M18 × 1.5	16
3	43010	Left Front Non-Marking Wheel	1
	43832	Tire/Wheel, Black, Left Front	1
4	43011	Adapter	2
5	43012	Pin	2
6	43013	Bolt	16
7	43014	Motor	2
8	43015	Straight Fitting	4
9	43016	Bearing	4
10	43017	Bearing	4
11	REF	Right Oscillate Cylinder Assembly (Refer To Page 137)	1
12	41287	Bearing	4
13	43018	Clevis Yoke	1
14	REF	Steer Cylinder Assembly (Refer To Page 139)	1
15	43019	Adjusting Screw	1
16	53169	NHEX M24 × 40	1
17	43020	Tie Rod Weldment	1
18	43021	Pin	4
19	42449	Pin	6
20	53046	WSHR M6 Spring Washer	6
21	50000	WSHR M6 Standard Flat	6
22	50445	HHCS M6 × 16	6
23	43022	Right Front Non-Marking Wheel	1
	43833	Tire/Wheel, Black, Right Front	1
24	50050	NNYL M12	8
25	50003	WSHR M12 Standard Flat	16
26	43023	Steer Yoke Weldment	2
27	50332	HHCS M10 × 35	4
28	53054	WSHR M10 Spring Washer	4
29	50002	WSHR M10 Standard Flat	4
30	43024	Pin	4
31	43025	Pin	4
32	50105	SHCS M12 × 90	8
33	REF	Left Oscillate Cylinder Assembly (Refer To Page 135)	1
34	43009	Pin	4
35	43026	Steer Axle Weldment	1

REF - Reference

Rear Axle Assembly Installation

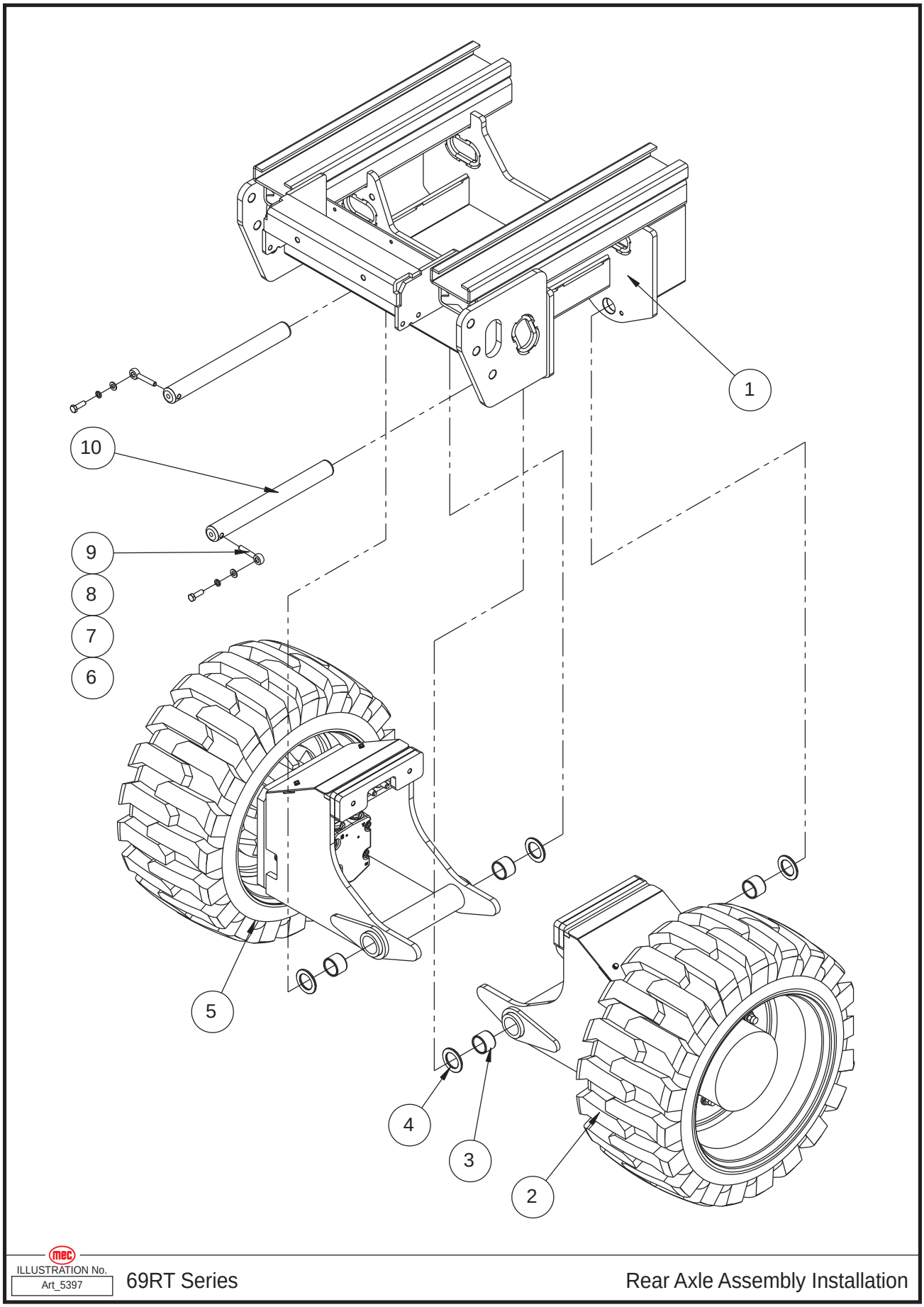


ILLUSTRATION No. Art_5397 69RT Series Rear Axle Assembly Installation

Item	Part Number	Description	Qty.
1	43006	Frame Weldment	1
2	REF	Right Rear Wheel Assembly (Refer To Page 45)	1
3	41105	Bearing	4
4	43008	Washer	4
5	REF	Left Rear Wheel Assembly (Refer To Page 43)	1
6	41431	Pin	2
7	50002	WSHR M10 Standard Flat	2
8	53054	WSHR M10 Spring Washer	2
9	50034	HHCS M10 × 30	2
10	43027	Pin	2

REF - Reference

Left Rear Wheel Assembly

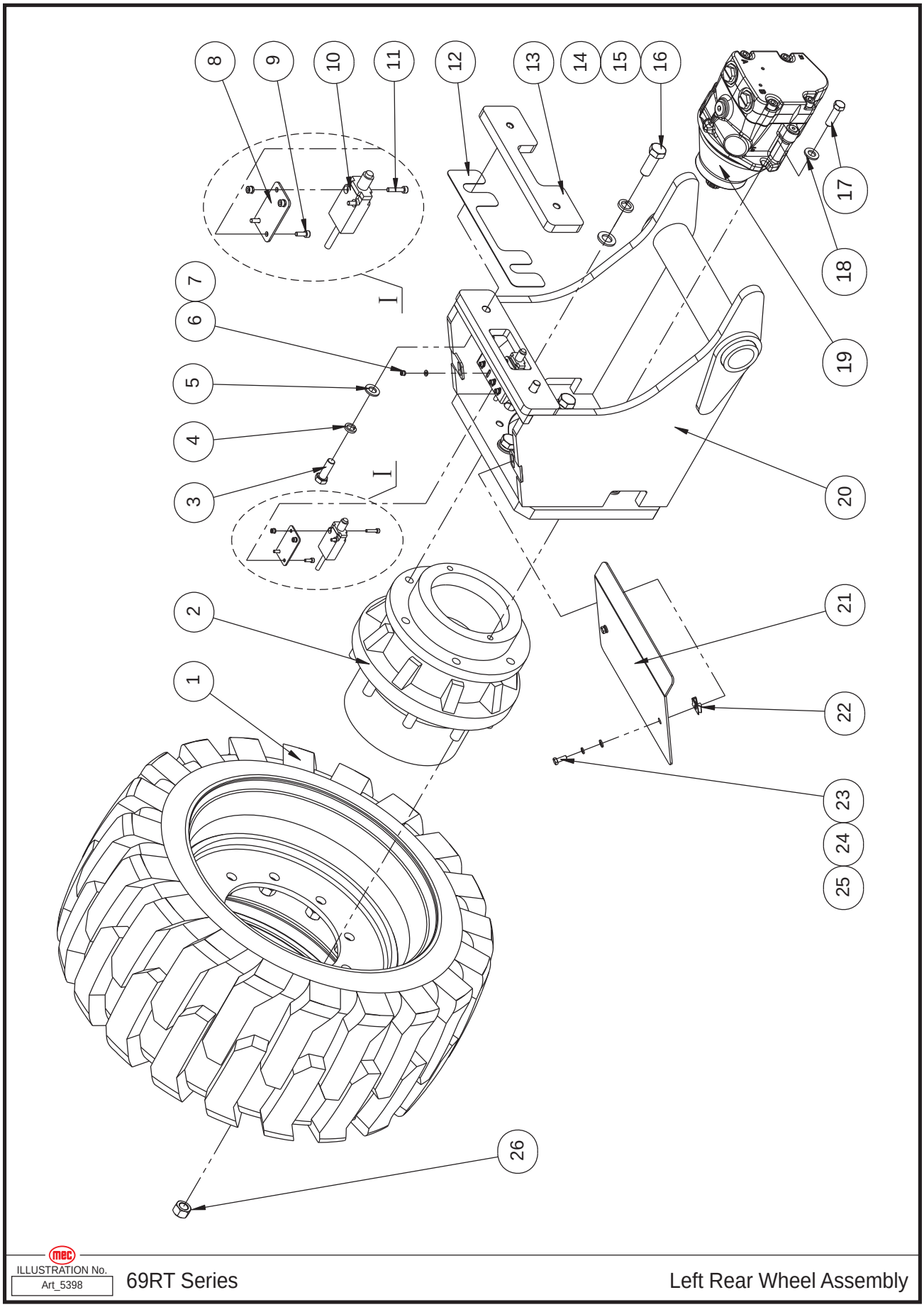


ILLUSTRATION No. Art_5398 69RT Series Left Rear Wheel Assembly

Item	Part Number	Description	Qty.
1	43028	Left Rear Non-Marking Wheel	1
	43831	Tire/Wheel, Black, Left Rear	1
2	42015	Drive Hub	1
3	50040	HHCS M12 × 35	2
4	53148	WSHR M12 Spring Washer	2
5	50003	WSHR M12 Standard Flat	2
6	50285	NNYL M4	8
7	50284	WSHR M4 Standard Flat	8
8	43030	Switch Plate	2
9	53113	SHCS M4 × 16	4
10	43031	Limit Switch	2
11	53115	SHCS M4 × 25	4
12	43032	Adjusting Plate	1
13	43033	Bumper	1
14	50004	WSHR M16 Standard Flat	6
15	53149	WSHR M16 Spring Washer	6
16	50479	HHCS 5/8-11 × 1.75	6
17	53178	HHCS 7/16-14 × 1.50	2
18	43034	Washer	2
19	REF	Rear Motor Assembly (Refer To Page 47)	1
20	43035	Rear Motor Housing Weldment	1
21	43036	Cover	1
22	43037	Nut	2
23	50028	HHCS M6 × 20	2
24	53046	WSHR M6 Spring Washer	2
25	50000	WSHR M6 Standard Flat	2
26	50266	NLUG 5/8-18	9

REF - Reference

Right Rear Wheel Assembly

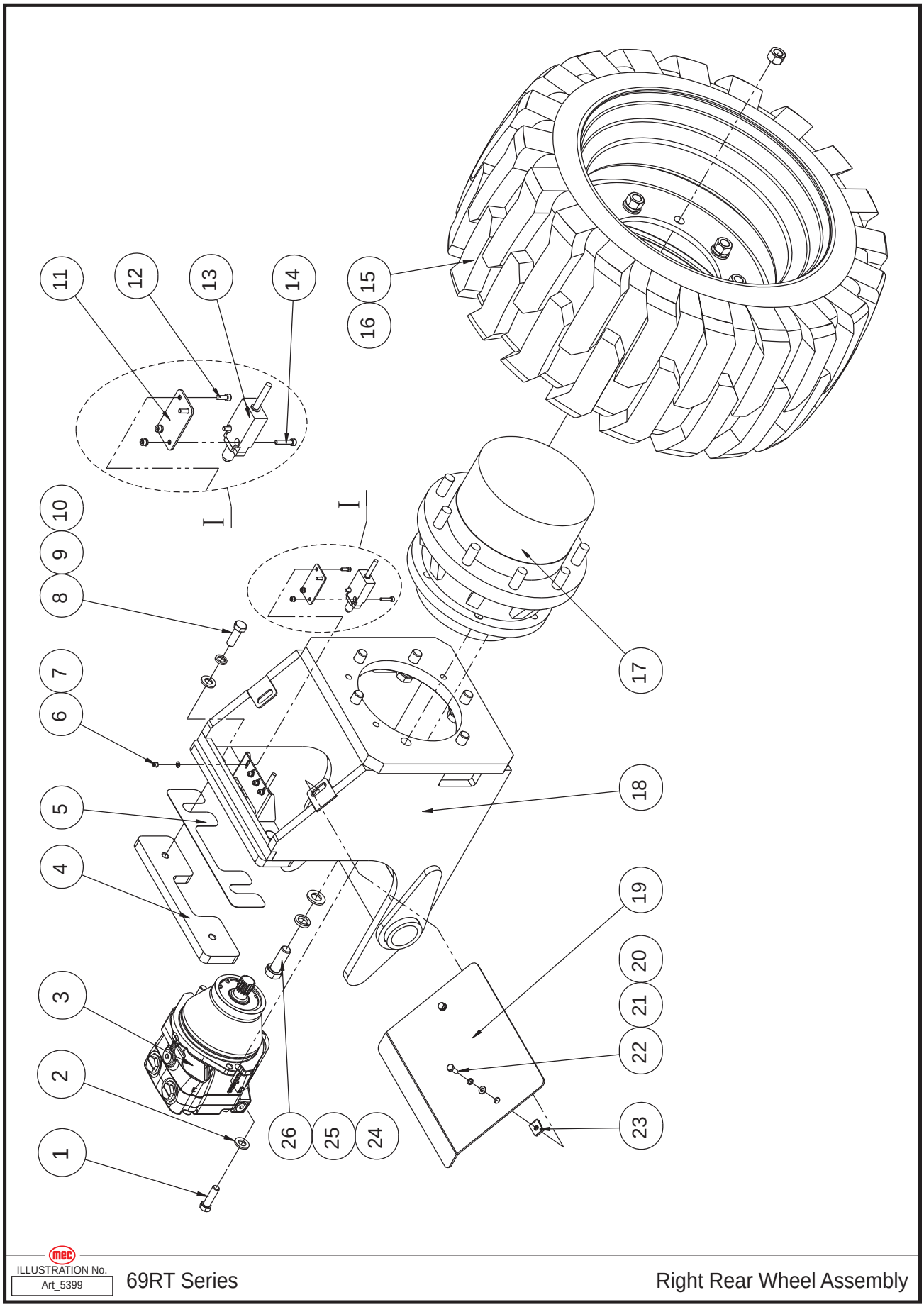


ILLUSTRATION No. Art_5399 69RT Series Right Rear Wheel Assembly

Item	Part Number	Description	Qty.
1	53178	HHCS 7/16-14 × 1.50	2
2	43034	Washer	2
3	REF	Rear Motor Assembly (Refer To Page 47)	1
4	43033	Bumper	1
5	43032	Adjusting Plate	1
6	50285	NNYL M4	8
7	50284	WSHR M4 Standard Flat	8
8	50040	HHCS M12 × 35	2
9	53148	WSHR M12 Spring Washer	2
10	50003	WSHR M12 Standard Flat	2
11	43030	Switch Plate	2
12	53113	SHCS M4 × 16	4
13	43031	Limit Switch	2
14	53115	SHCS M4 × 25	4
15	43038	Right Rear Non-Marking Wheel	1
	43830	Tire/Wheel, Black, Right Rear	1
16	50266	NLUG 5/8-18	9
17	42015	Drive Hub	1
18	43035	Rear Motor Housing Weldment	1
19	43036	Cover	1
20	50028	HHCS M6 × 20	2
21	53046	WSHR M6 Spring Washer	2
22	50000	WSHR M6 Standard Flat	2
23	43037	Nut	2
24	50479	HHCS 5/8-11 × 1.75	6
25	53149	WSHR M16 Spring Washer	6
26	50004	WSHR M16 Standard Flat	6

REF - Reference

Rear Motor Assembly

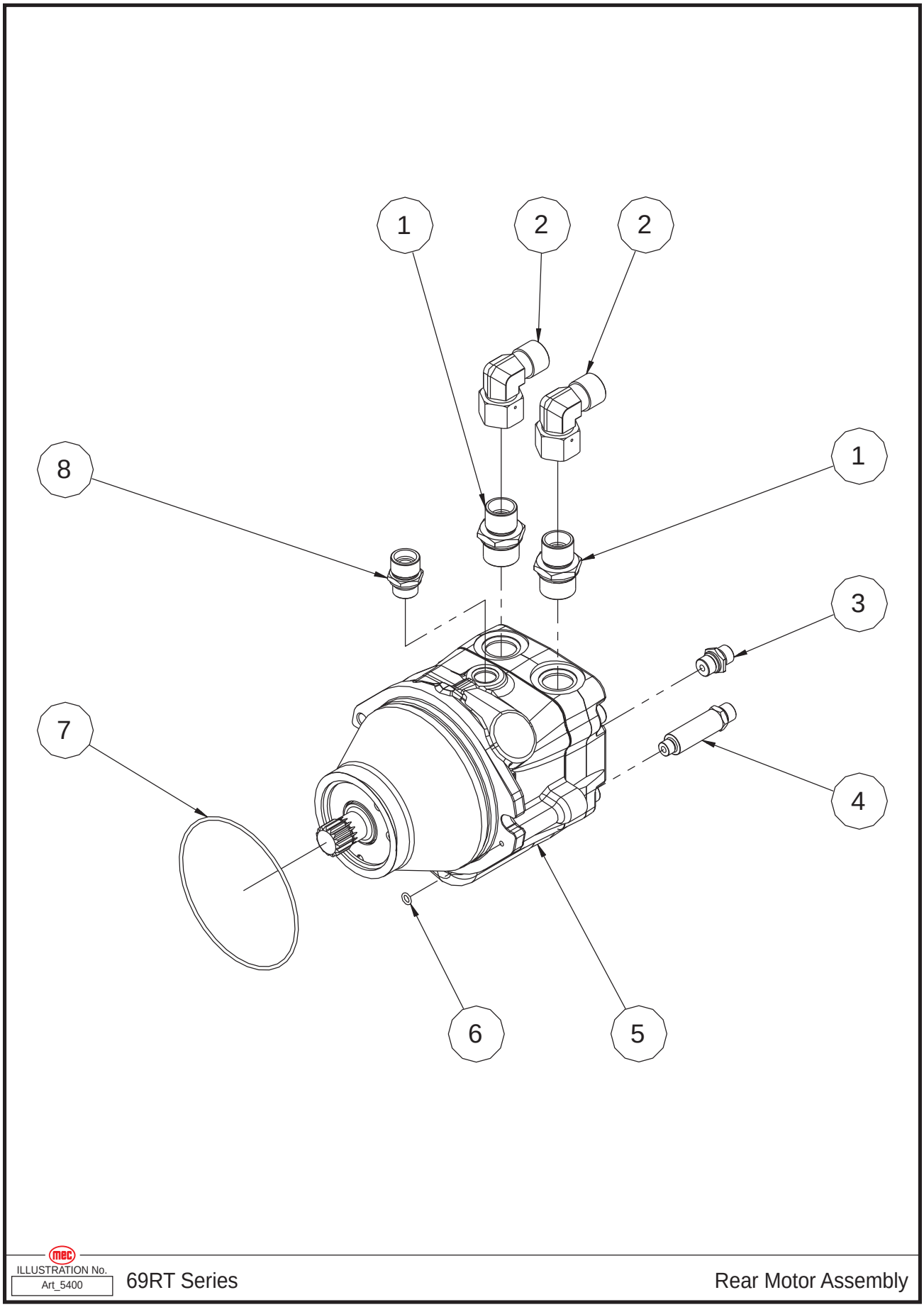


ILLUSTRATION No. Art_5400 69RT Series Rear Motor Assembly

Item	Part Number	Description	Qty.
1	43039	Straight Fitting	2
2	43040	Elbow	2
3	43041	Straight Fitting	1
4	43042	Straight Fitting	1
5	43043	Motor	1
6	92042	O-Ring	1
7	92166	O-Ring	1
8	43046	Straight Fitting	1

Hydraulic Module Installation

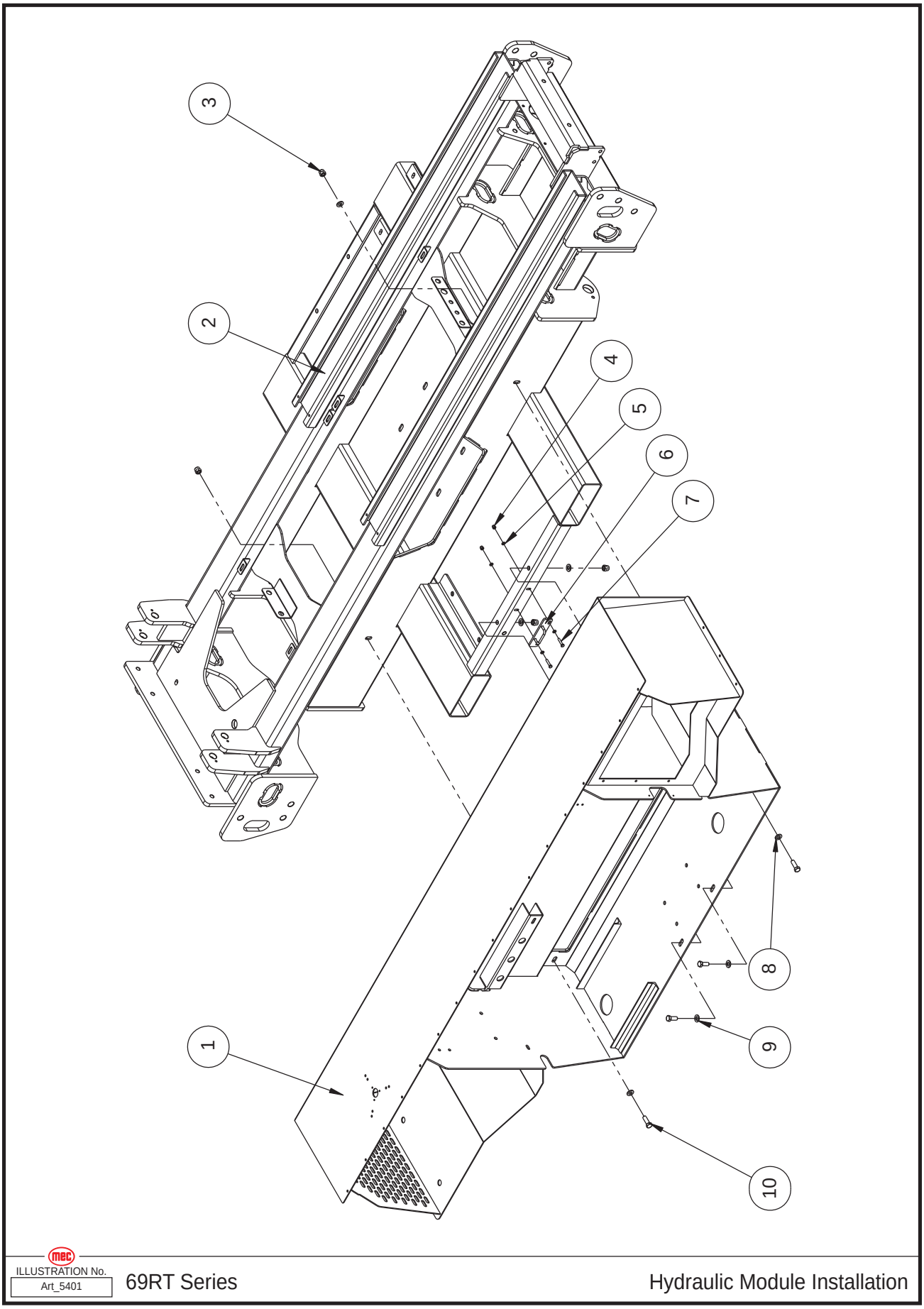


ILLUSTRATION No. Art_5401 69RT Series Hydraulic Module Installation

Item	Part Number	Description	Qty.
1	43047	Hydraulic Module Weldment	1
2	43006	Frame Weldment	1
3	50050	NNYL M12	4
4	50047	NNYL M6	2
5	50000	WSHR M6 Standard Flat	4
6	43048	Lock	1
7	50214	HHCS M6 × 30	2
8	50003	WSHR M12 Standard Flat	6
9	50003	WSHR M12 Standard Flat	2
10	50040	HHCS M12 × 35	4

Hydraulic Module Door Installation

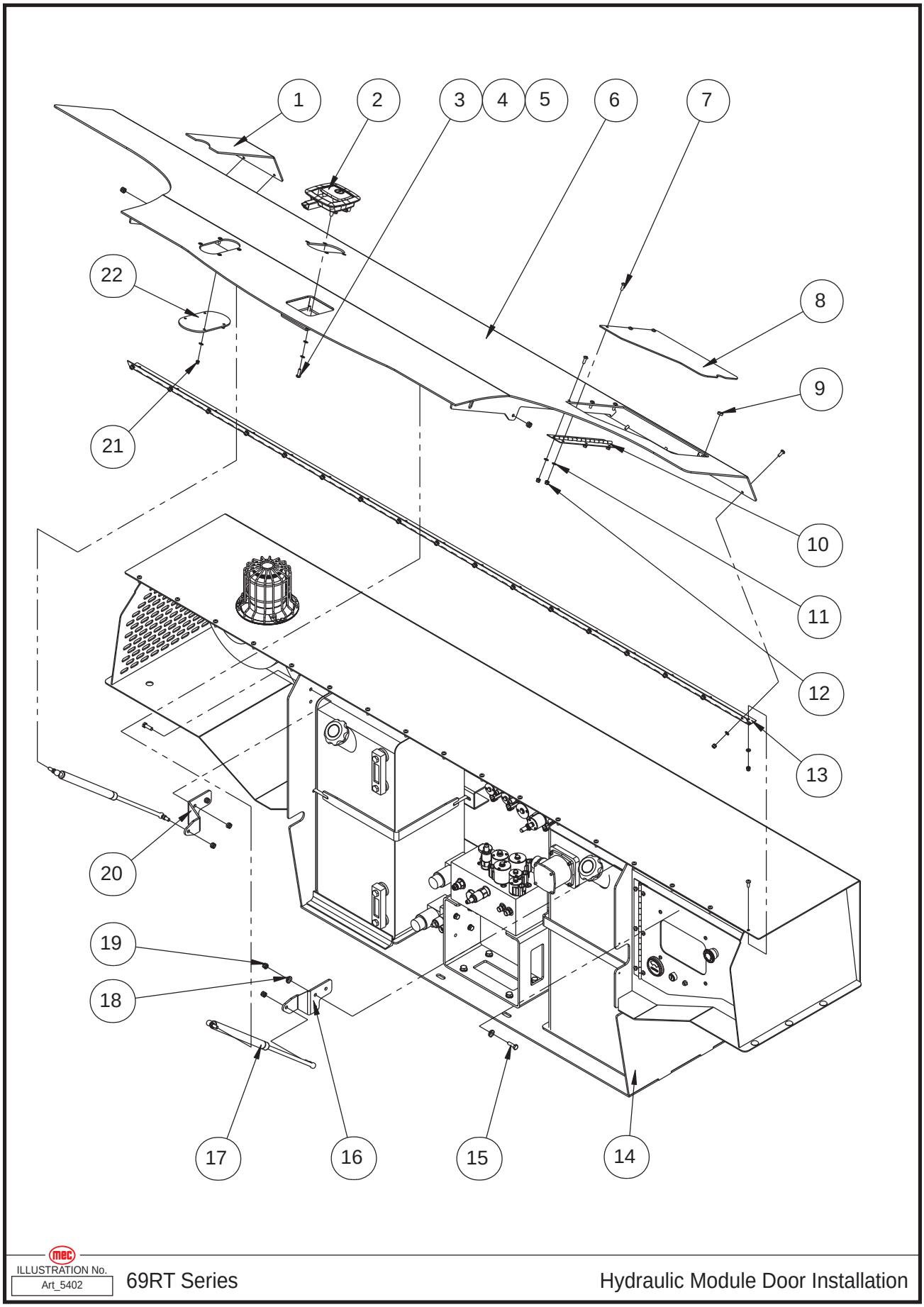


ILLUSTRATION No. Art_5402 69RT Series Hydraulic Module Door Installation

Item	Part Number	Description	Qty.
1	43049	Fuel Tank Door	1
2	43050	Latch	1
3	53219	THMS M5 × 20	4
4	53043	WSHR M5 Spring Washer	4
5	53038	WSHR M5 Standard Flat	4
6	43051	Left Door	1
7	53231	PHMS M6 × 16	41
8	43052	Control Door Plate	1
9	43053	Magnet	2
10	43054	Hinge	1
11	50000	WSHR M6 Standard Flat	41
12	50047	NNYL M6	41
13	43055	Hinge	1
14	REF	Hydraulic Module Assembly (Refer To Page 53)	1
15	43056	Gas Shock Bracket	1
16	50031	HHCS M8 × 25	6
17	43057	Gas Shock	2
18	50001	WSHR M8 Standard Flat	12
19	50048	NNYL M8	10
20	43058	Gas Shock Bracket	1
21	50524	NNYL M5	8
22	43059	PC Plate	2

REF - Reference

Hydraulic Module Assembly

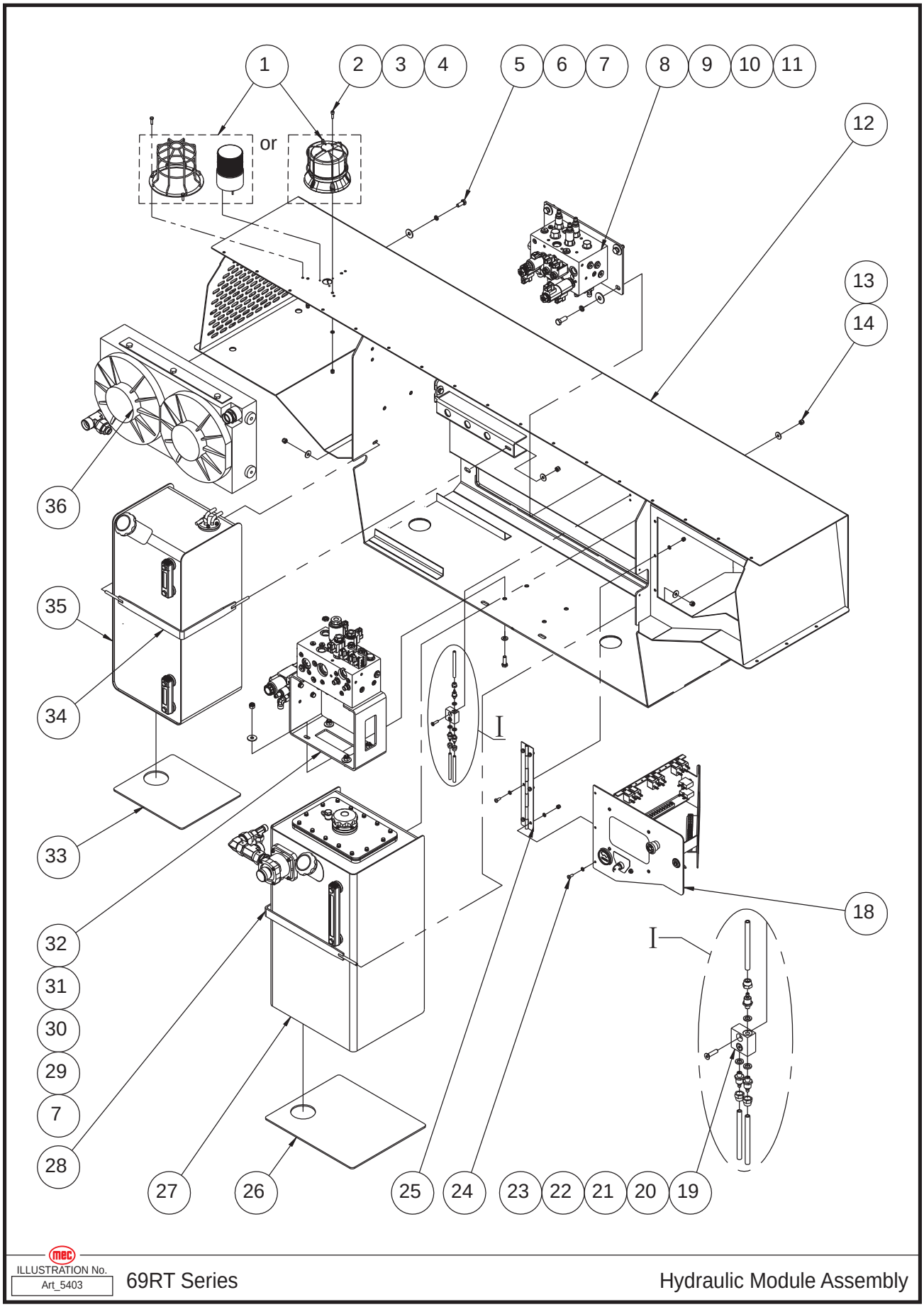


ILLUSTRATION No. Art_5403 69RT Series Hydraulic Module Assembly

Item	Part Number	Description	Qty.
1	43442	Beacon	1
	43060	Beacon (Revolving Light)	1
	43061	Beacon Cover	1
2	53124	SHCS M6 × 20	3
3	50000	WSHR M6 Standard Flat	21
4	50047	NNYL M6	15
5	50033	HHCS M10 × 25	12
6	53054	WSHR M10 Spring Washer	12
7	50002	WSHR M10 Standard Flat	12
8	REF	Function Manifold Assembly - RT Models (Refer To Page 57)	1
9	50003	WSHR M12 Standard Flat	4
10	53148	WSHR M12 Spring Washer	4
11	50039	HHCS M12 × 30	4
12	43047	Hydraulic Module Weldment	1
13	50001	WSHR M8 Standard Flat	4
14	50048	NNYL M8	4
15	--	--	--
16	--	--	--
17	--	--	--
18	REF	Ground Control Box Assembly (Refer To Page 59)	1
19	41112	Hydraulic Hoses Manifolds (4069RT)	1
20	50386	CSCS M6 × 25 (4069RT)	2
21	43066	Hose (4069) (To Hydraulic Tank)	1
22	43067	Hose (4069) (To Upper Lift Cylinder)	1
23	43068	Hose (4069) (To Lower Lift Cylinder)	1
24	53231	PHMS M6 × 16	6
25	43069	Hinge	1
26	43070	Rubber Pad	1
27	REF	Hydraulic Tank Assembly (Refer To Page 61)	1
28	43071	Tank Strap	1
29	50034	HHCS M10 × 30	4
30	50002	WSHR M10 Standard Flat	8
31	50049	NNYL M10	4
32	REF	Drive Manifold Assembly (Refer To Page 55)	1
33	43072	Rubber Pad	1
34	43073	Tank Strap	1
35	REF	Fuel Tank Assembly (Refer To Page 63)	1
36	43074	Oil Cooler	1

REF - Reference

Drive Manifold Assembly

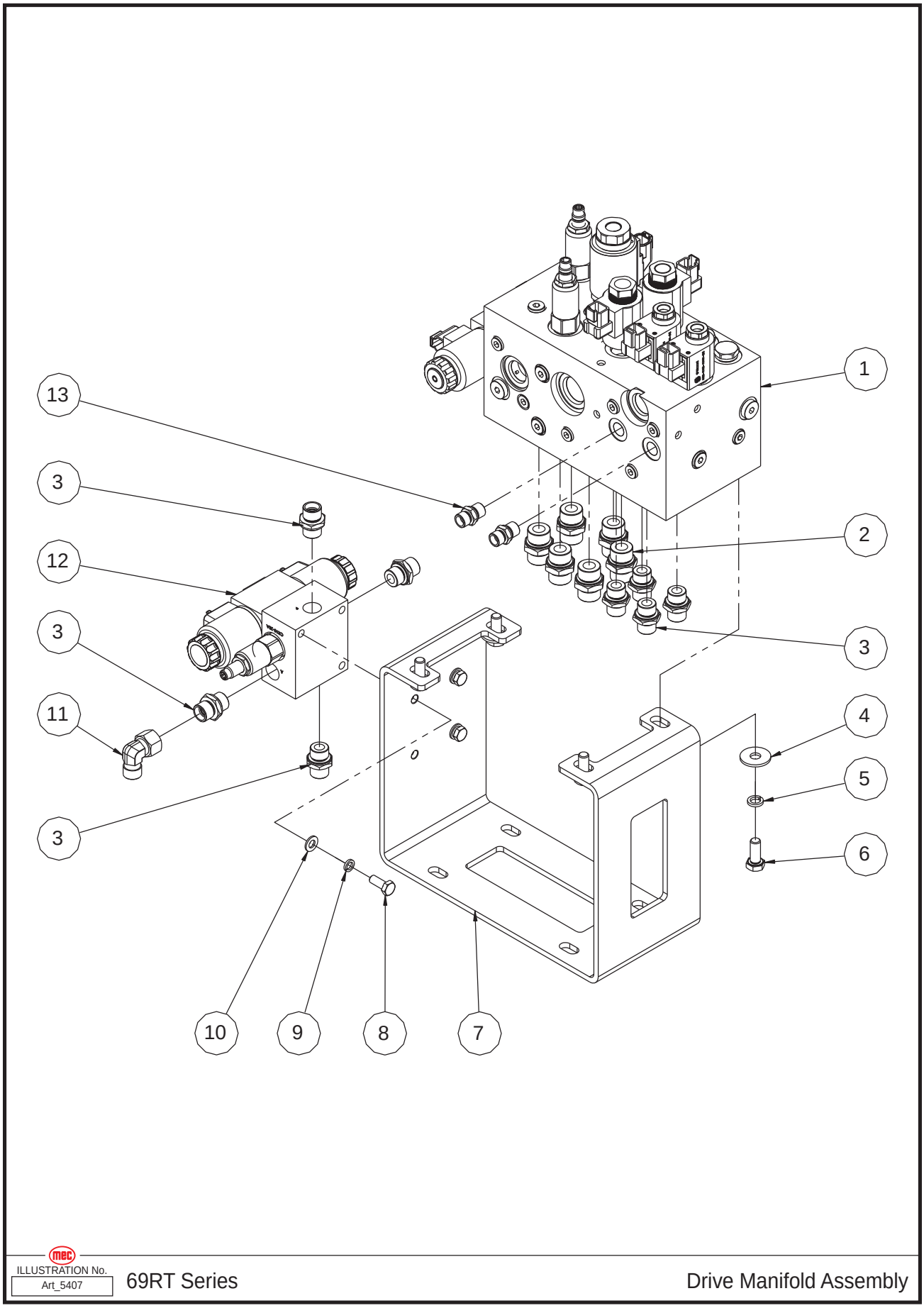


ILLUSTRATION No. Art_5407 69RT Series Drive Manifold Assembly

Item	Part Number	Description	Qty.
1	43543	Drive Manifold (Refer To Page 145)	1
2	43080	Straight Fitting	6
3	43083	Straight Fitting	8
4	50002	WSHR M10 Standard Flat	4
5	53054	WSHR M10 Spring Washer	4
6	50033	HHCS M10 × 25	4
7	43126	Drive Manifold Bracket	1
8	50030	HHCS M8 × 20	3
9	53055	WSHR M8 Spring Washer	3
10	50001	WSHR M8 Standard Flat	3
11	43082	Elbow	1
12	43127	Outrigger Manifold	1
13	43076	Straight Fitting	2

Function Manifold Assembly - RT Models

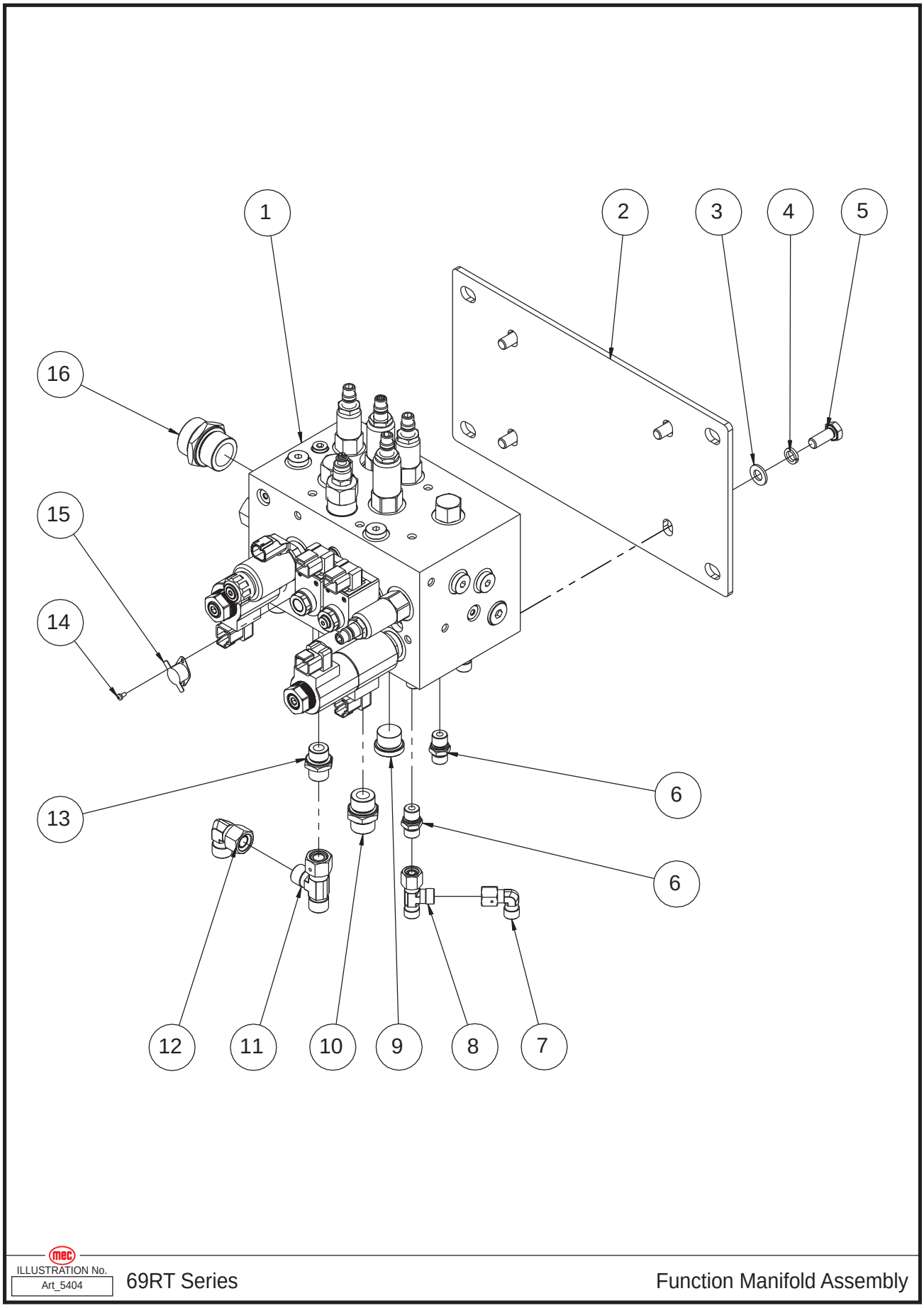


ILLUSTRATION No. Art_5404 69RT Series Function Manifold Assembly

Item	Part Number	Description	Qty.
1	43529	Function Manifold - RT Models (Refer To Page 143)	1
2	43075	Function Manifold Mount Plate	1
3	50002	WSHR M10 Standard Flat	4
4	53054	WSHR M10 Spring Washer	4
5	50033	HHCS M10 × 25	4
6	43076	Straight Fitting	4
7	43077	Elbow	2
8	43078	Tee Fitting	2
9	43079	Plug	1
10	43080	Straight Fitting	2
11	43081	Tee Fitting	1
12	43082	Elbow	1
13	43083	Straight Fitting	2
14	53076	PHMS M3 × 6	2
15	43084	Temperature Switch	1
16	43085	Straight Fitting	1

Ground Control Box Assembly

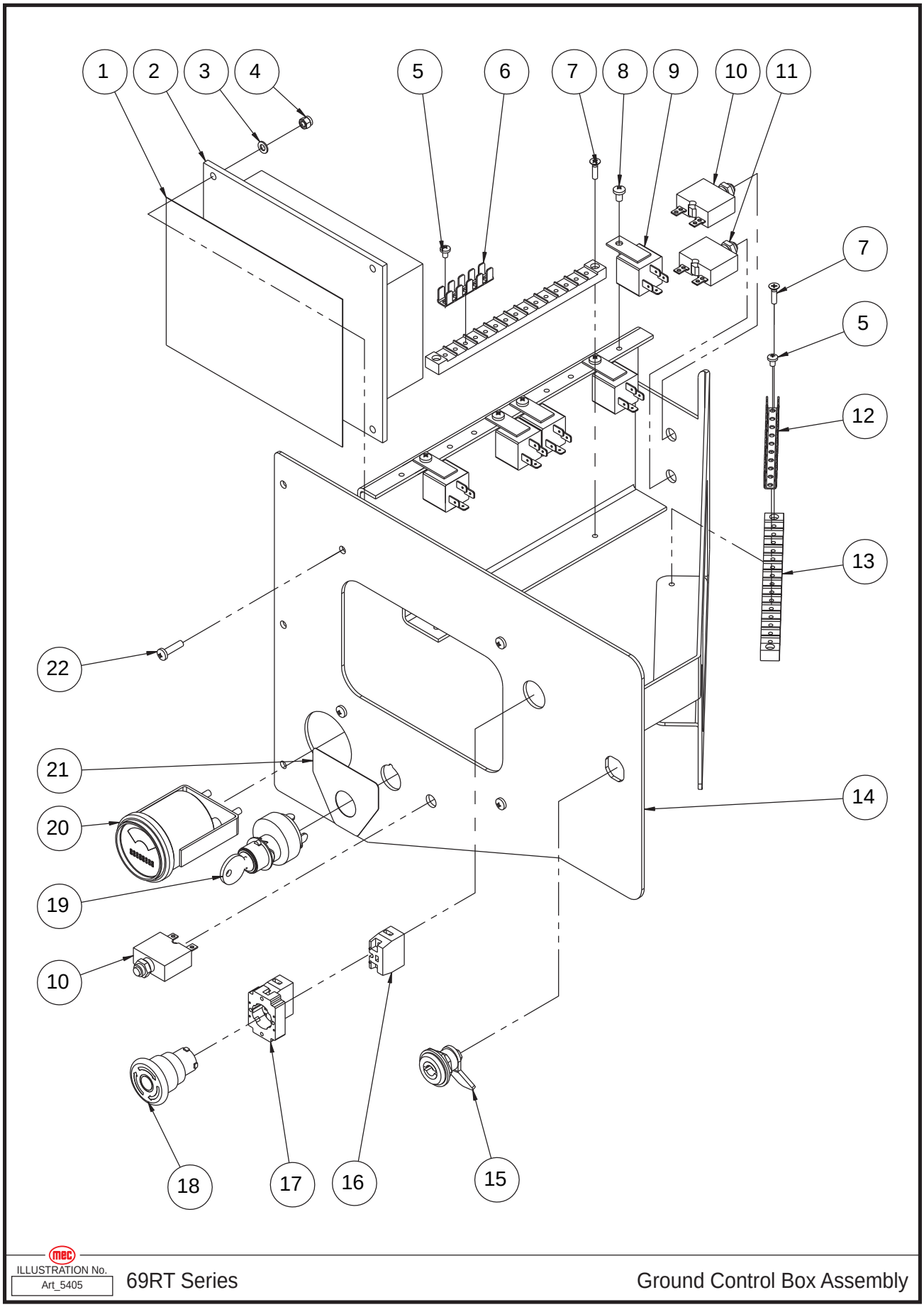


ILLUSTRATION No. Art_5405 69RT Series Ground Control Box Assembly

Item	Part Number	Description	Qty.
1	43086	Decal, Ground Control Panel	1
2	43087	Controller	1
3	53038	WSHR M5 Standard Flat	4
4	50524	NNYL M5	4
5	53220	PHMS M4 × 6	4
6	43088	Terminal Strip 6	1
7	53221	CSCS M4 × 16	4
8	53222	PHMS M5 × 8	5
9	42342	Relay	5
10	43090	Circuit Breaker	2
11	43091	Circuit Breaker	1
12	43092	Terminal Strip 9	1
13	43093	Terminal Strip Base	2
14	43094	Ground Control Box Weldment	1
15	42352	Latch, Column	1
16	43096	NC Contact	1
17	43097	Base With 1 NC Contact	1
18	43098	Red Mushroom Head	1
19	41418	Key Switch	1
--	43100	Key	1
20	41070	Hour Meter	1
21	43102	Decal, Key Switch Panel	1
22	53219	THMS M5 × 20	4

Hydraulic Tank Assembly

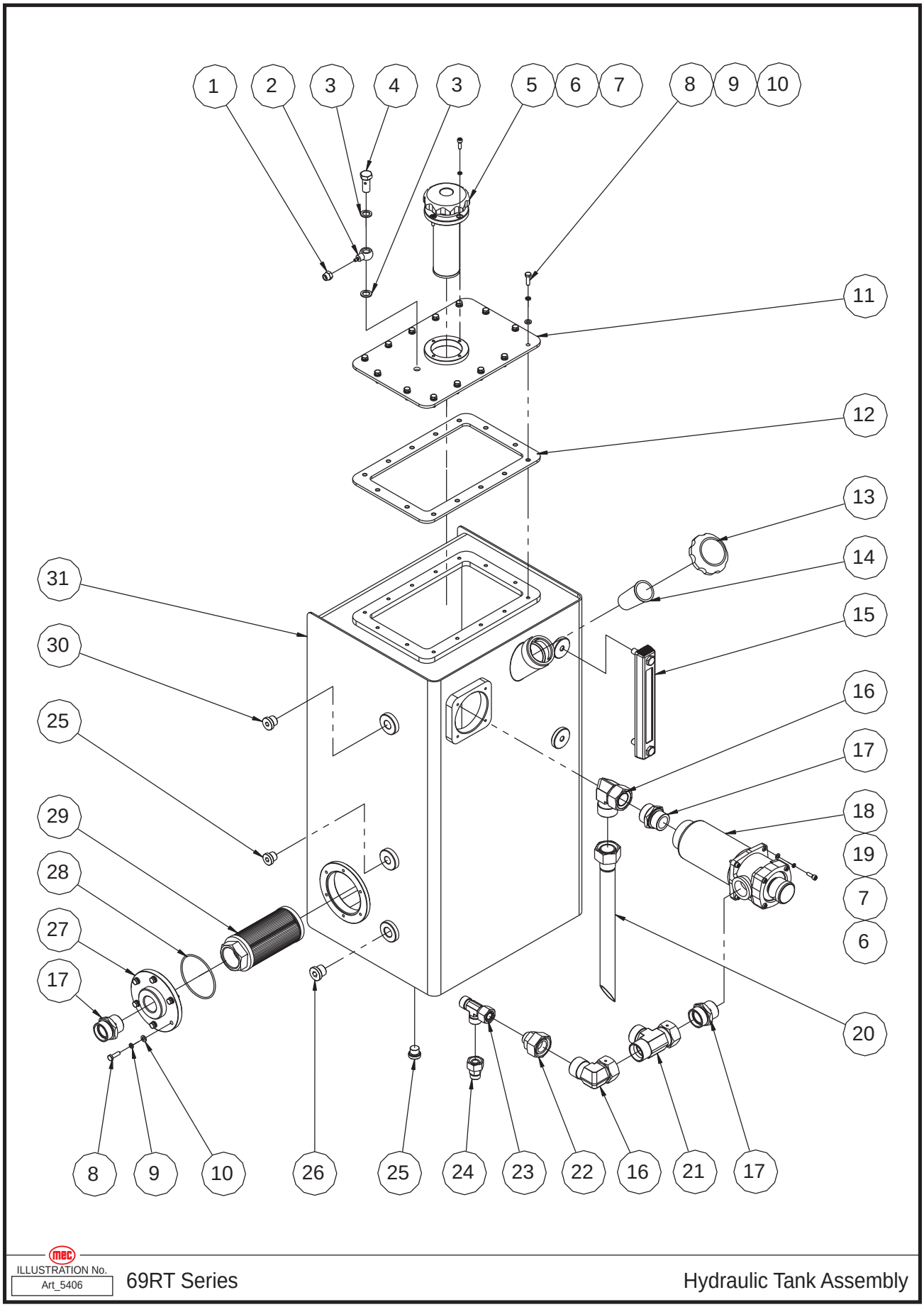


ILLUSTRATION No. Art_5406 69RT Series Hydraulic Tank Assembly

Item	Part Number	Description	Qty.
1	41413	Nut	1
2	41167	Fitting	1
3	53215	WSHR M13 Standard Flat	2
4	41166	Fitting	1
5	42055	Breather	1
6	50359	SHCS M5 × 16	8
7	53043	WSHR M5 Spring Washer	8
8	50028	HHCS M6 × 20	20
9	53046	WSHR M6 Spring Washer	20
10	50000	WSHR M6 Standard Flat	20
11	43107	Cover Weldment	1
12	43108	Rubber Pad	1
13	43109	Tank Cover	1
14	43110	Filter Web	1
15	43111	Level Gauge	1
16	43112	Elbow	2
17	43085	Straight Fitting	3
18	43113	Return Filter	1
--	42837	Filter Element	1
19	53038	WSHR M5 Standard Flat	4
20	43114	Pipe	1
21	43115	Tee Fitting	1
22	43116	Straight Fitting - RT Models Only	1
23	43117	Tee Fitting	1
24	43118	Straight Fitting - RT Models Only	1
25	43119	Plug	2
26	43120	Plug	1
27	43121	Flange	1
28	43122	O-Ring	1
29	43123	Filter	1
30	43124	Plug	1
31	43125	Hydraulic Tank Weldment	1

Fuel Tank Assembly

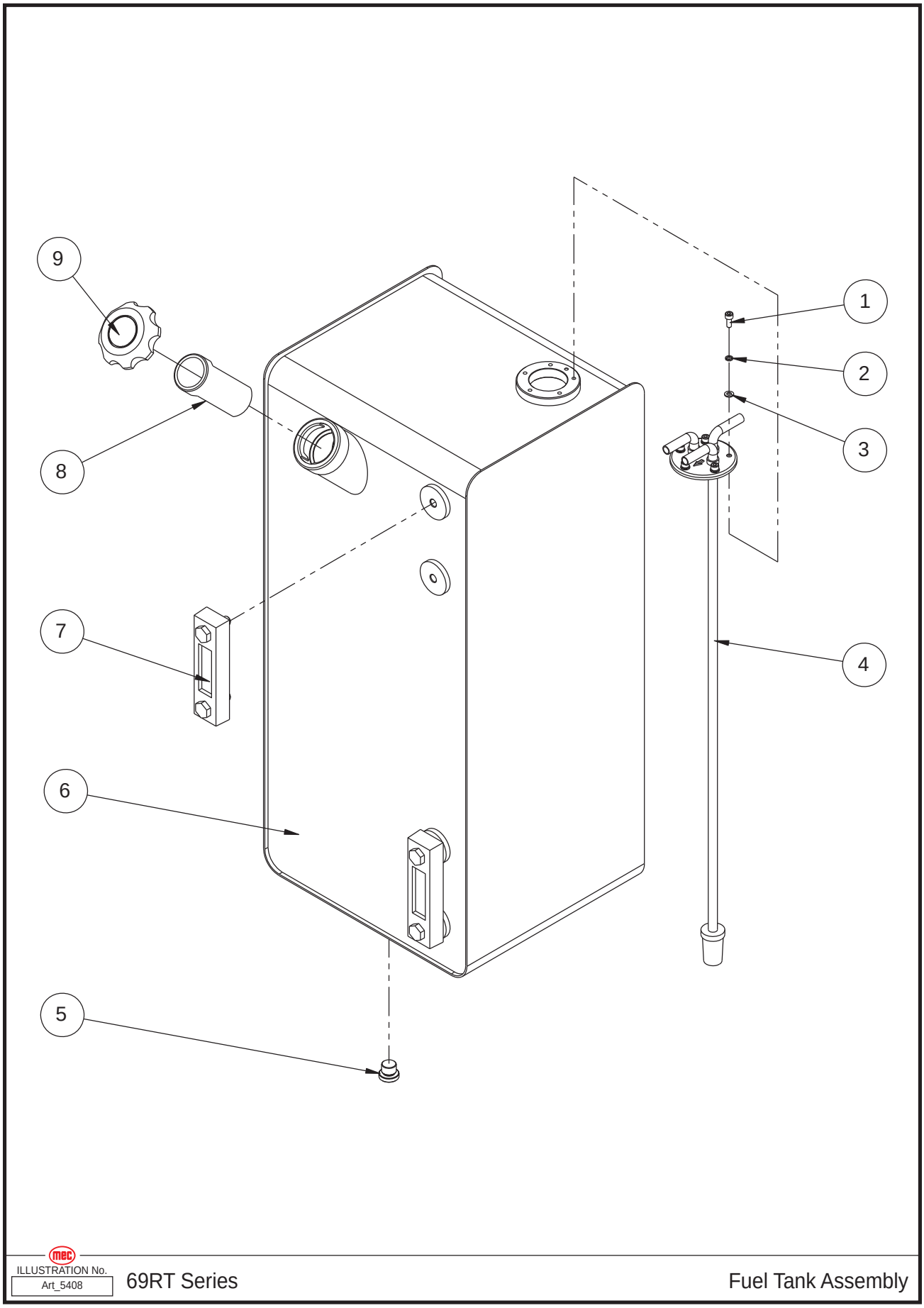


ILLUSTRATION No. Art_5408 69RT Series Fuel Tank Assembly

Item	Part Number	Description	Qty.
1	53116	SHCS M5 × 12	5
2	53043	WSHR M5 Spring Washer	5
3	53038	WSHR M5 Standard Flat	5
4	43128	Pipe	1
5	43119	Plug	1
6	43129	Fuel Tank Weldment	1
7	43130	Level Gauge	2
8	43110	Filter Web	1
9	43109	Tank Cover	1

Engine Module Installation

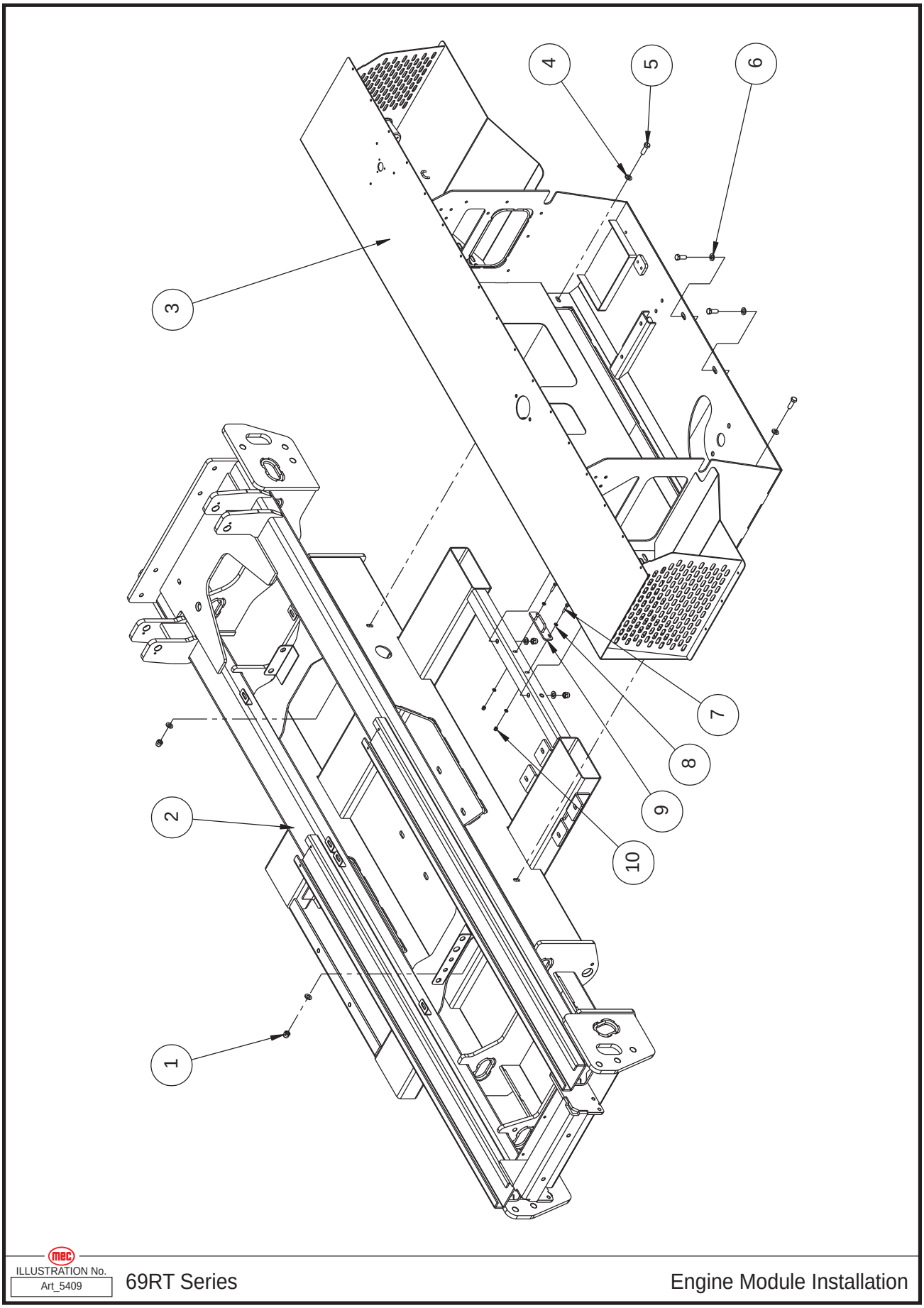


ILLUSTRATION No. Art_5409 69RT Series Engine Module Installation

Item	Part Number	Description	Qty.
1	50050	NNYL M12	4
2	43006	Frame Weldment	1
3	43131	Engine Module Weldment	1
4	50003	WSHR M12 Standard Flat	6
5	50040	HHCS M12 × 35	4
6	50003	WSHR M12 Standard Flat	2
7	50214	HHCS M6 × 30	2
8	50000	WSHR M6 Standard Flat	4
9	43048	Lock	1
10	50047	NNYL M6	2

Engine Module Door Installation

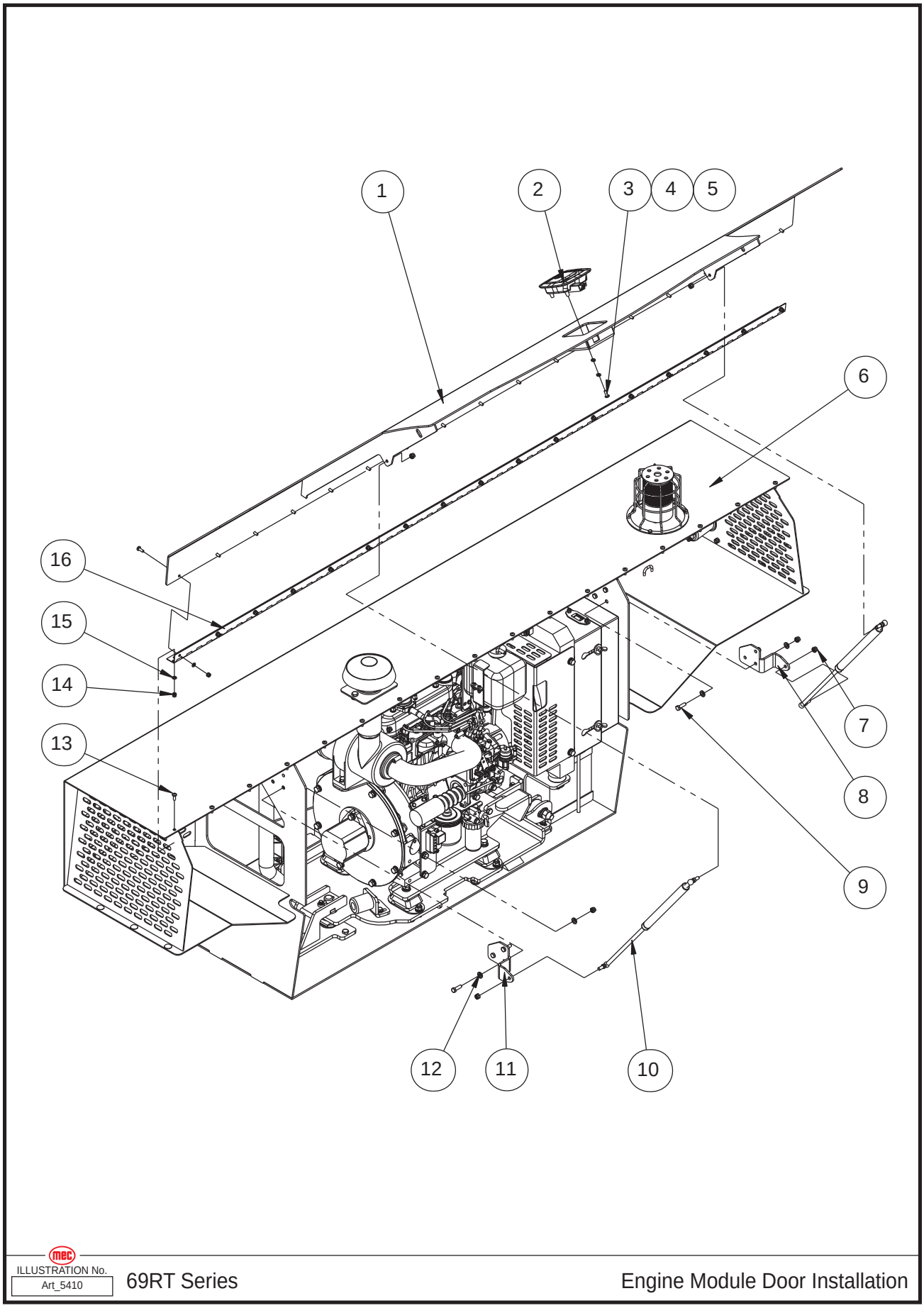


ILLUSTRATION No. Art_5410 69RT Series Engine Module Door Installation

Item	Part Number	Description	Qty.
1	43132	Right Door	1
2	43050	Latch	1
3	53219	THMS M5 × 20	4
4	53043	WSHR M5 Spring Washer	4
5	53038	WSHR M5 Standard Flat	4
6	REF	Engine Module Assembly (Refer To Page 69)	1
7	50048	NNYL M8	10
8	43133	Gas Shock Bracket	1
9	50031	HHCS M8 × 25	6
10	43057	Gas Shock	2
11	43134	Gas Shock Bracket	1
12	50001	WSHR M8 Standard Flat	12
13	53231	PHMS M6 × 16	34
14	50047	NNYL M6	34
15	50000	WSHR M6 Standard Flat	34
16	43135	Hinge	1

REF - Reference

Engine Module Assembly

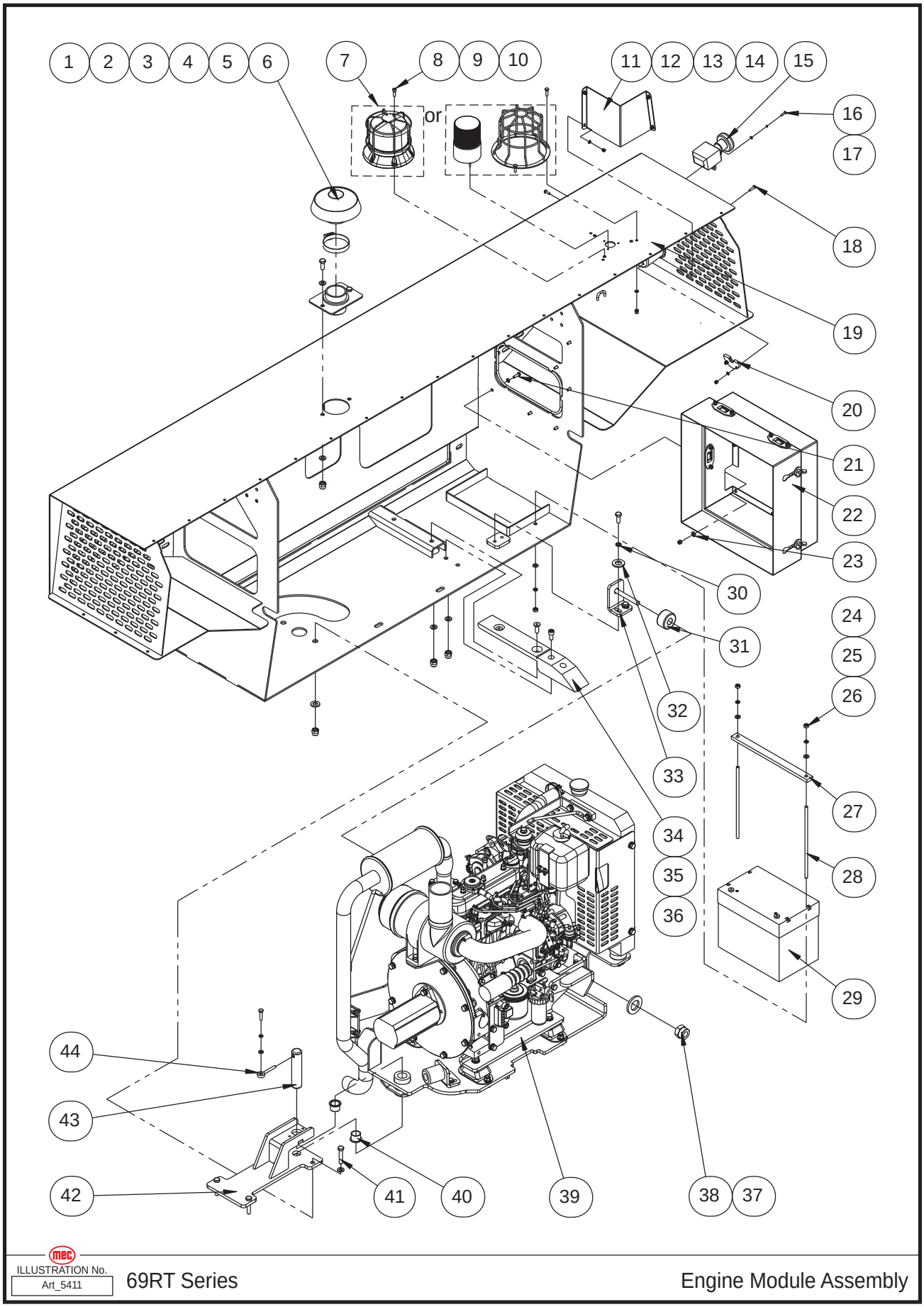


ILLUSTRATION No. Art_5411

69RT Series

Engine Module Assembly

Item	Part Number	Description	Qty.
1	43136	Air Cleaner Cap	1
2	43137	Clamp	1
3	43138	Air Cleaner Cap Mounting Weldment	1
4	50033	HHCS M10 × 25	5
5	50002	WSHR M10 Standard Flat	13
6	50049	NNYL M10	10
7	43442	Beacon	1
	43060	Beacon	1
	43061	Beacon Cover	1
8	53124	SHCS M6 × 20	3
9	50000	WSHR M6 Standard Flat	19
10	50047	NNYL M6	19
11	43139	Switch Protection Plate	1
12	53038	WSHR M5 Standard Flat	18
13	50524	NNYL M5	8
14	53223	THMS M5 × 16	4
15	42071	Power Switch	1
16	53224	THMS M5 × 12	2
17	53043	WSHR M5 Spring Washer	2
18	53219	THMS M5 × 20	4
19	43131	Engine Module Weldment	1
20	43141	Half-Round Batten	2
21	50028	HHCS M6 × 20	13
22	REF	Radiator Shroud Assembly (Refer To Page 73)	1
23	50000	WSHR M6 Standard Flat	10
24	50048	NNYL M8	4
25	53055	WSHR M8 Spring Washer	4
26	50001	WSHR M8 Standard Flat	4
27	43142	Battery Keeper Bar	1
28	43143	Threaded Rod	2
29	43144	Battery	1
30	53054	WSHR M10 Spring Washer	3
31	41049	Bumper	1
32	50002	WSHR M10 Standard Flat	6
33	43146	Bumper Bracket	1
34	43147	Spacer	1
35	50127	SHCS M10 × 30	2
36	53225	CSCS M10 × 30	2
37	43148	Washer	1
38	50051	NNYL M16	1
39	REF	Engine System Assembly (Refer To Pages 75, 79, 81)	1
	REF	Dual Fuel Engine Assembly (Refer To Pages 87)	1
40	43149	Bearing	2
41	50430	HHCS M10 × 45	4
42	43150	Engine Pivot Mounting Weldment	1

43	43151	Pin	1
44	41431	Pin	1

REF - Reference

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Radiator Shroud Assembly

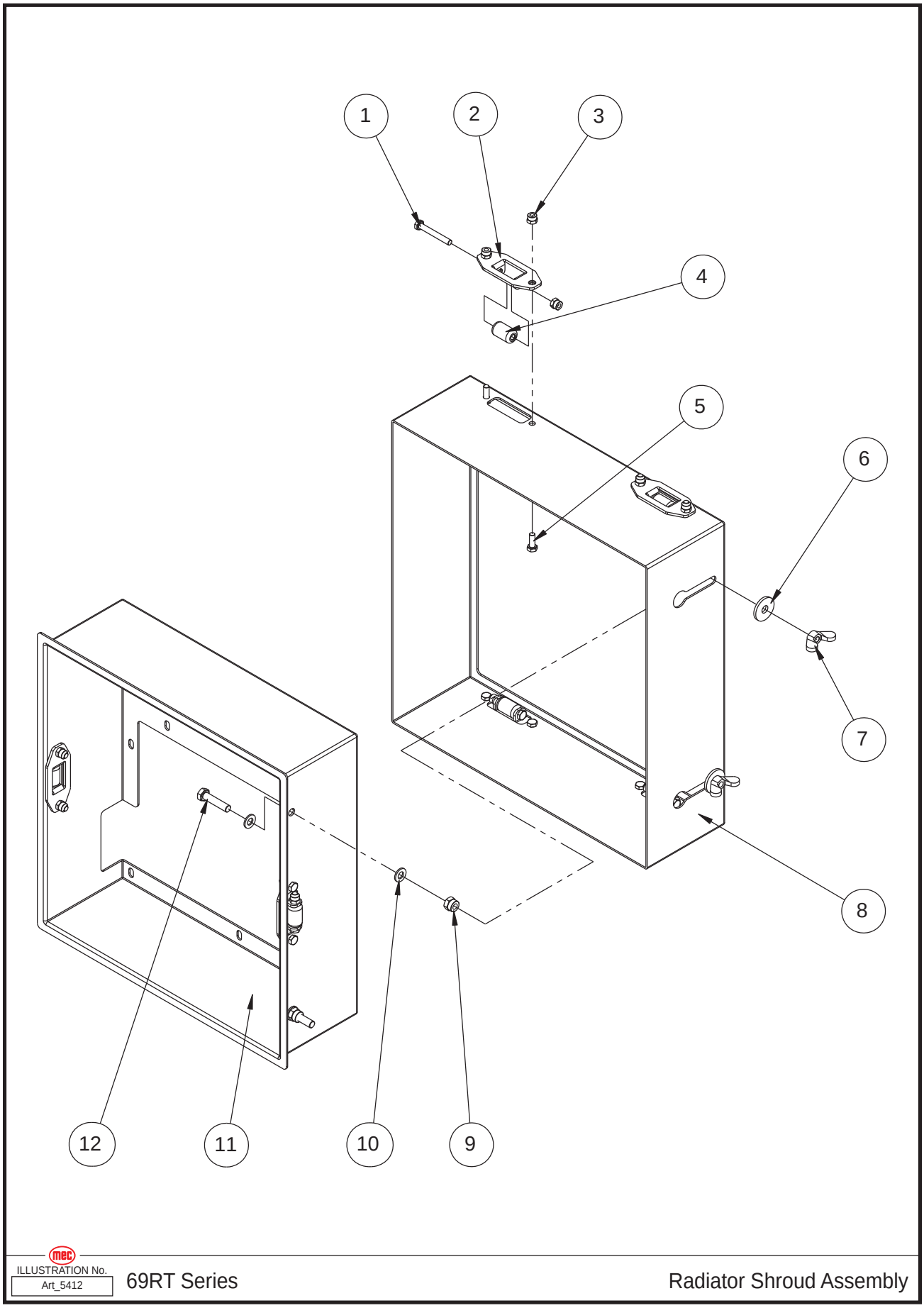

ILLUSTRATION No. Art_5412 69RT Series Radiator Shroud Assembly

Item	Part Number	Description	Qty.
1	50294	HHCS M6 × 45	6
2	43152	Roller Support	6
3	50047	NNYL M6	6
4	43153	Roller	6
5	50445	HHCS M6 × 16	12
6	50001	WSHR M8 Standard Flat	2
7	53206	Wing Nut M8	2
8	43154	Inner Shroud	1
9	50048	NNYL M8	2
10	50001	WSHR M8 Standard Flat	4
11	43155	Outer Shroud	1
12	50282	HHCS M8 × 35	2

Diesel Cooling System Installation

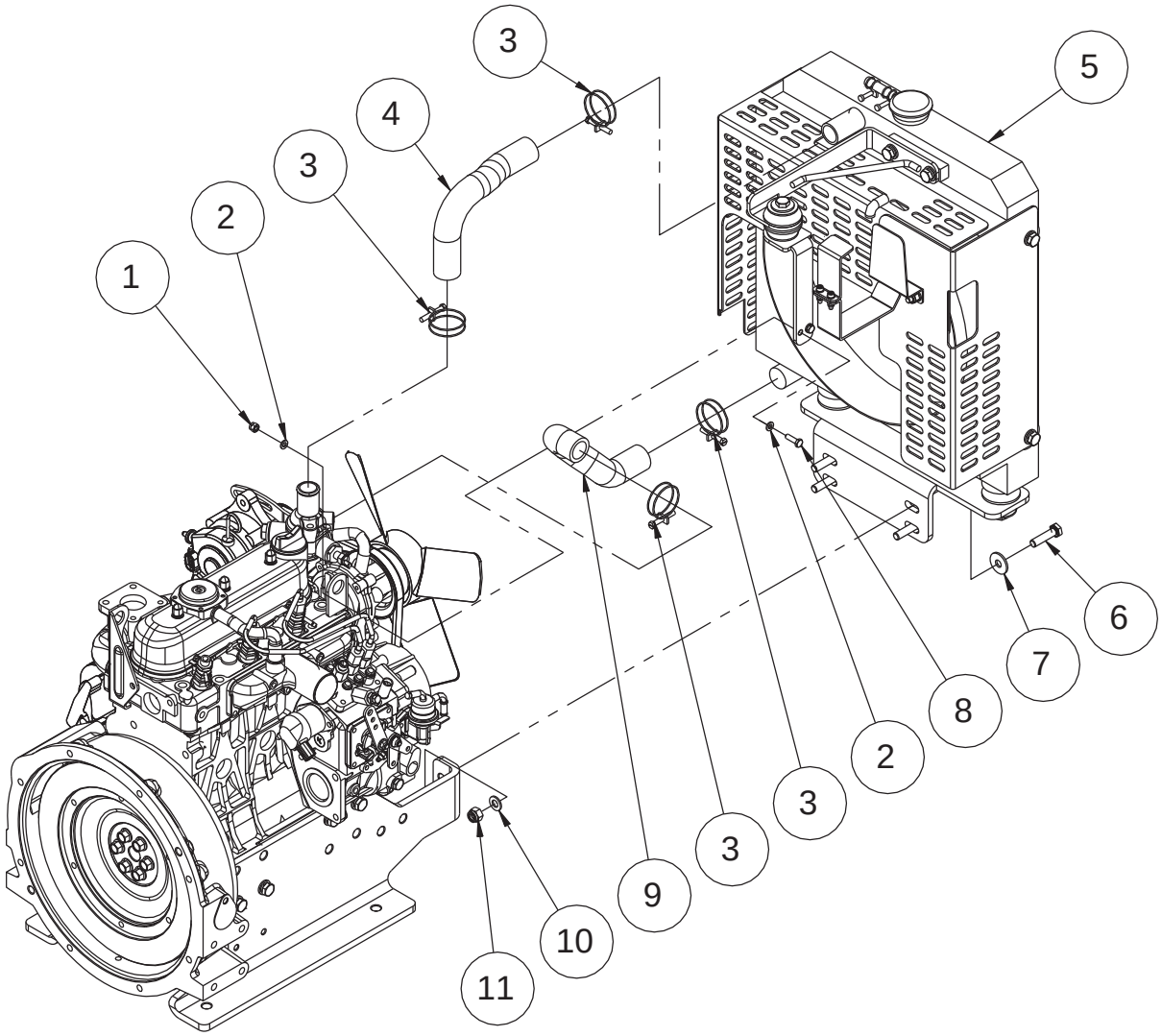

ILLUSTRATION No. Art_5413

69RT Series

Cooling System Installation

Item	Part Number	Description	Qty.
1	50047	NNYL M6	2
2	50000	WSHR M6 Standard Flat	4
3	43156	Clamp	4
4	43157	Hose	1
5	REF	Diesel Cooling System Assembly (Refer To Page 77)	1
6	50035	HHCS M10 × 40	4
7	50002	WSHR M10 Standard Flat	8
8	50028	HHCS M6 × 20	2
9	43158	Hose	1
10	50002	WSHR M10 Standard Flat	22
11	50049	NNYL M10	5

REF - Reference

Diesel and Dual Fuel Cooling System Assembly

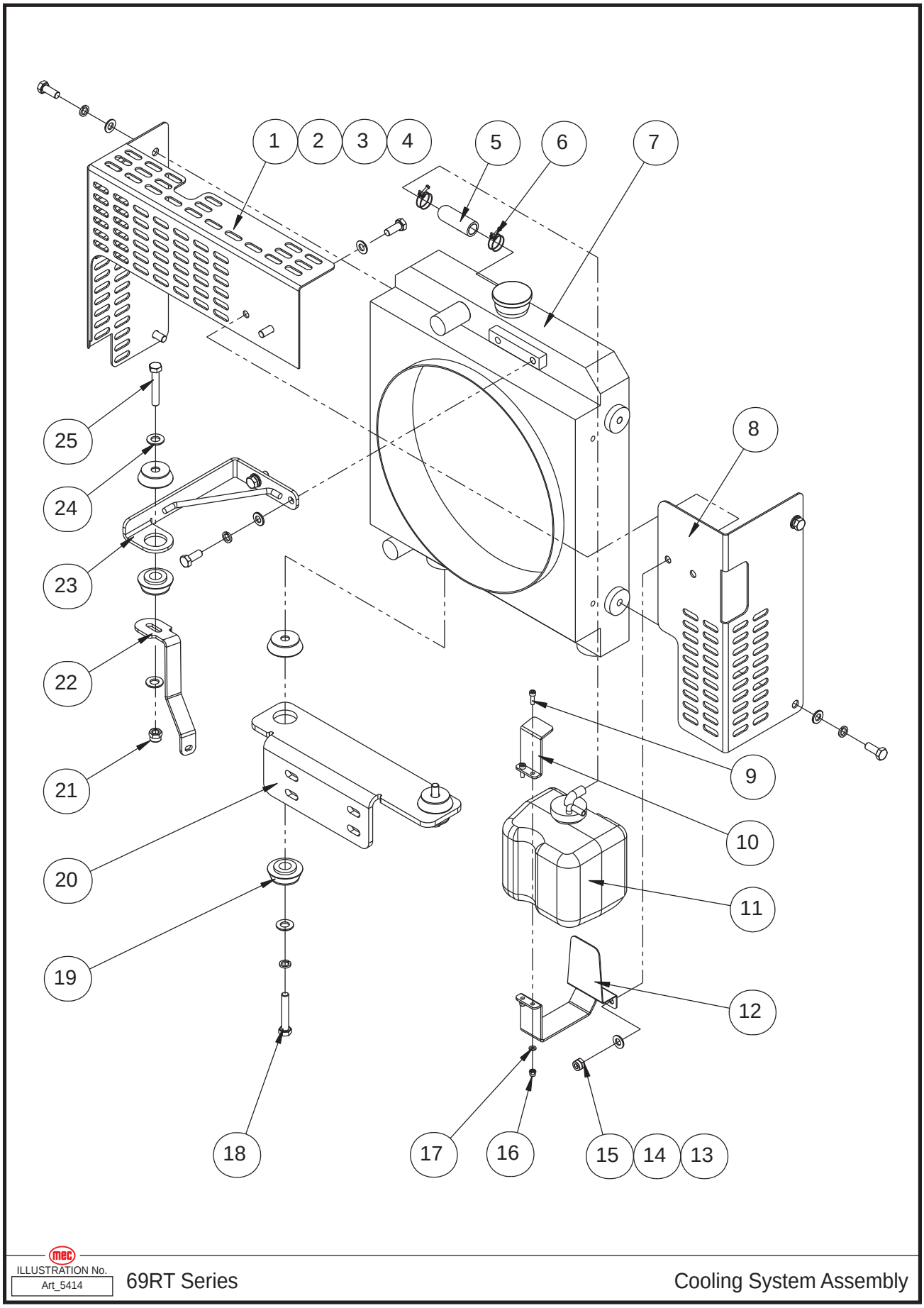

ILLUSTRATION No. Art_5414 69RT Series Cooling System Assembly

Item	Part Number	Description	Qty.
1	43159	Cover	1
2	50033	HHCS M10 × 25	6
3	53054	WSHR M10 Spring Washer	6
4	50002	WSHR M10 Standard Flat	6
5	43160	Hose	1
6	43161	Clamp	2
7	43162	Radiator	1
8	43163	Cover	1
9	53150	SHCS M5 × 20	2
10	43164	Bottle Fixing Plate	1
11	43165	Coolant Recovery Bottle	1
12	43166	Bottle Bracket	1
13	50048	NNYL M8	2
14	50001	WSHR M8 Standard Flat	4
15	50031	HHCS M8 × 25	2
16	50524	NNYL M5	2
17	53038	WSHR M5 Standard Flat	2
18	50021	HHCS M10 × 55	2
19	43167	Bumper	6
20	43962	Cooler Bracket	1
21	50049	NNYL M10	1
22	43964	Support	1
23	43965	Bracket Weldment	1
24	50002	WSHR M10 Standard Flat	4
25	50383	HHCS M10 × 70	1

Diesel Intake System and Exhaust System

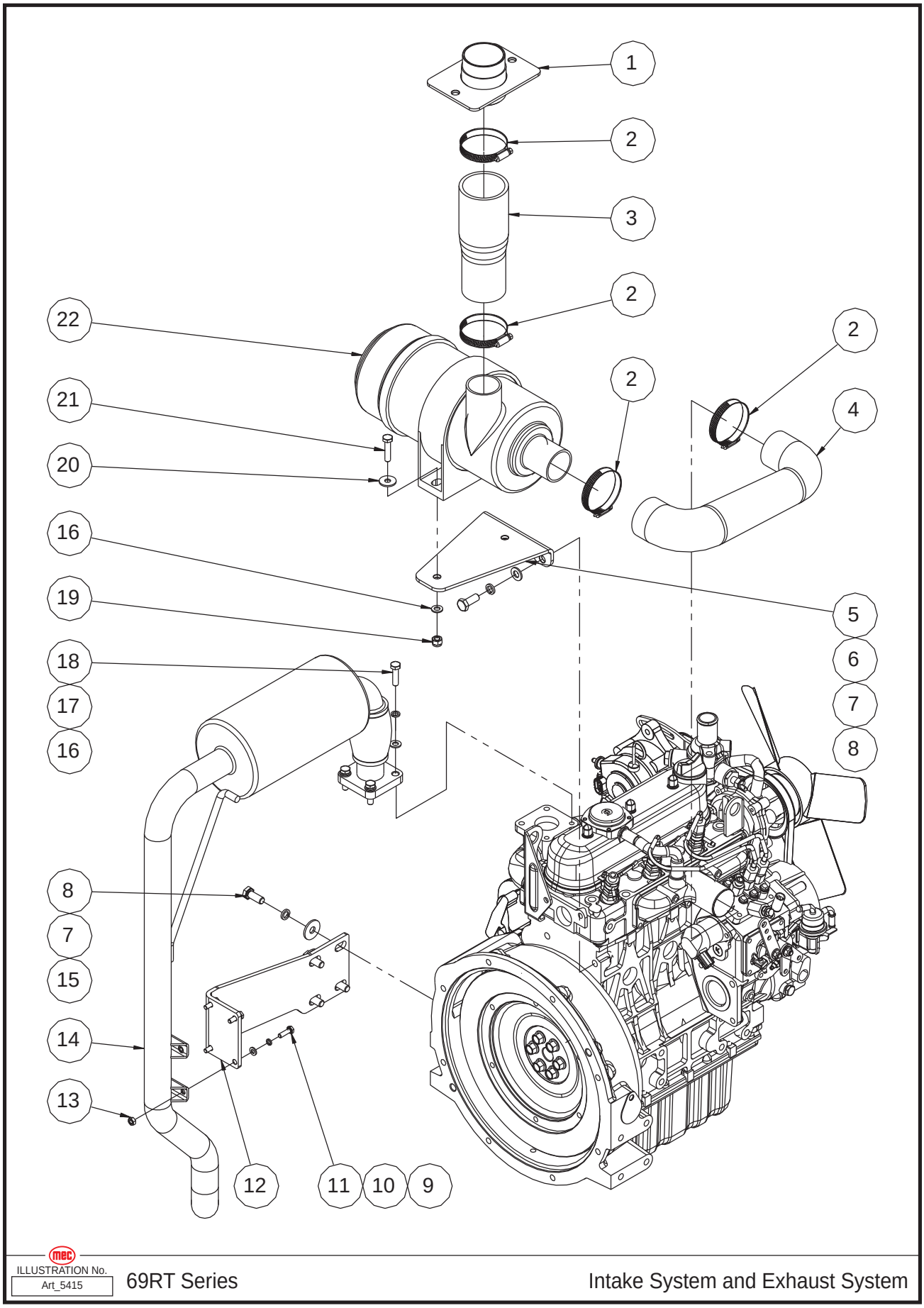

ILLUSTRATION No. Art_5415 69RT Series Intake System and Exhaust System

Item	Part Number	Description	Qty.
1	43138	Air Cleaner Cap Mounting Weldment (Refer To Page 69)	1
2	43137	Clamp	4
3	43171	Hose	1
4	43172	Hose	1
5	43173	Air Cleaner Bracket	1
6	50002	WSHR M10 Standard Flat	2
7	53054	WSHR M10 Spring Washer	6
8	50033	HHCS M10 × 25	6
9	50000	WSHR M6 Standard Flat	4
10	53046	WSHR M6 Spring Washer	4
11	50028	HHCS M6 × 20	4
12	43174	Muffler Bracket	1
13	50396	NHEX M6	4
14	43175	Muffler	1
15	50002	WSHR M10 Standard Flat	4
16	50001	WSHR M8 Standard Flat	6
17	53055	WSHR M8 Spring Washer	4
18	50032	HHCS M8 × 30	4
19	50048	NNYL M8	2
20	50001	WSHR M8 Standard Flat	2
21	50282	HHCS M8 × 35	2
22	43176	Air Cleaner	1
--	43177	Filter Element, Outer	1
--	44264	Filter Element, Inner	1

Diesel Engine Assembly

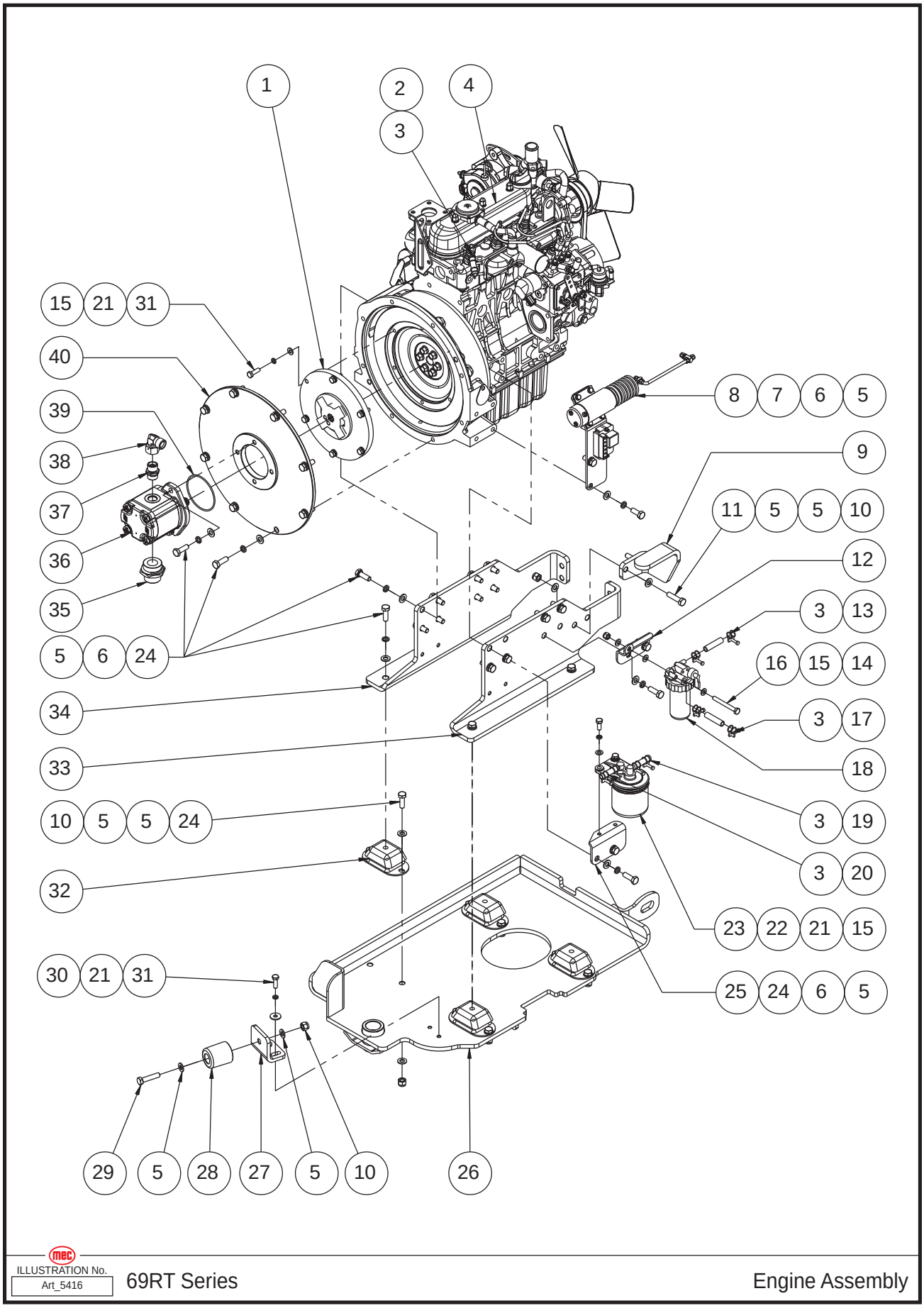

ILLUSTRATION No. Art_5416

69RT Series

Engine Assembly

Item	Part Number	Description	Qty.
1	43178	Flexible Coupling	1
2	43179	Hose	1
3	43161	Clamp	10
4	43180	Engine	1
--	43181	Alternator	1
--	43182	Starter Motor	1
--	43183	Filter Element, Oil Filter	1
--	43184	Coolant Temperature Switch	1
--	43185	Oil Pressure Switch	1
--	43186	Coil	1
--	8665	Oil Filter Element	1
5	50002	WSHR M10 Standard Flat	54
6	53054	WSHR M10 Spring Washer	32
7	50033	HHCS M10 × 25	2
8	REF	Throttle System Assembly (Refer To Page 85)	1
9	43187	Handle	1
10	50049	NNYL M10	11
11	50035	HHCS M10 × 40	2
12	43188	Fuel-Water Separator Bracket	1
13	43189	Hose	1
14	50048	NNYL M8	1
15	50001	WSHR M8 Standard Flat	11
16	50548	HHCS M8 × 70	1
17	43190	Hose	1
18	42741	Fuel-Water Separator	1
--	42388	Separator Element	1
19	43192	Hose	1
20	43193	Hose	1
21	53055	WSHR M8 Spring Washer	10
22	50030	HHCS M8 × 20	2
23	43194	Fuel Filter	1
--	43195	Filter Element	1
24	50034	HHCS M10 × 30	38
25	43196	Fuel Filter Bracket	1
26	43197	Engine Swing Tray Weldment	1
27	43198	Bumper Bracket	1
28	43199	Bumper	1
29	50020	HHCS M10 × 50	1
30	50001	WSHR M8 Standard Flat	2
31	50031	HHCS M8 × 25	8
32	43200	Absorber	4
33	43201	Engine Bracket	1
34	43202	Engine Bracket	1
35	43203	Straight Fitting	1

36	43204	Gear Pump	1
37	43205	Straight Fitting	1
38	43206	Elbow	1
39	43122	O-Ring	1
40	43207	Adapter	1

REF - Reference

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Diesel Fuel System Assembly

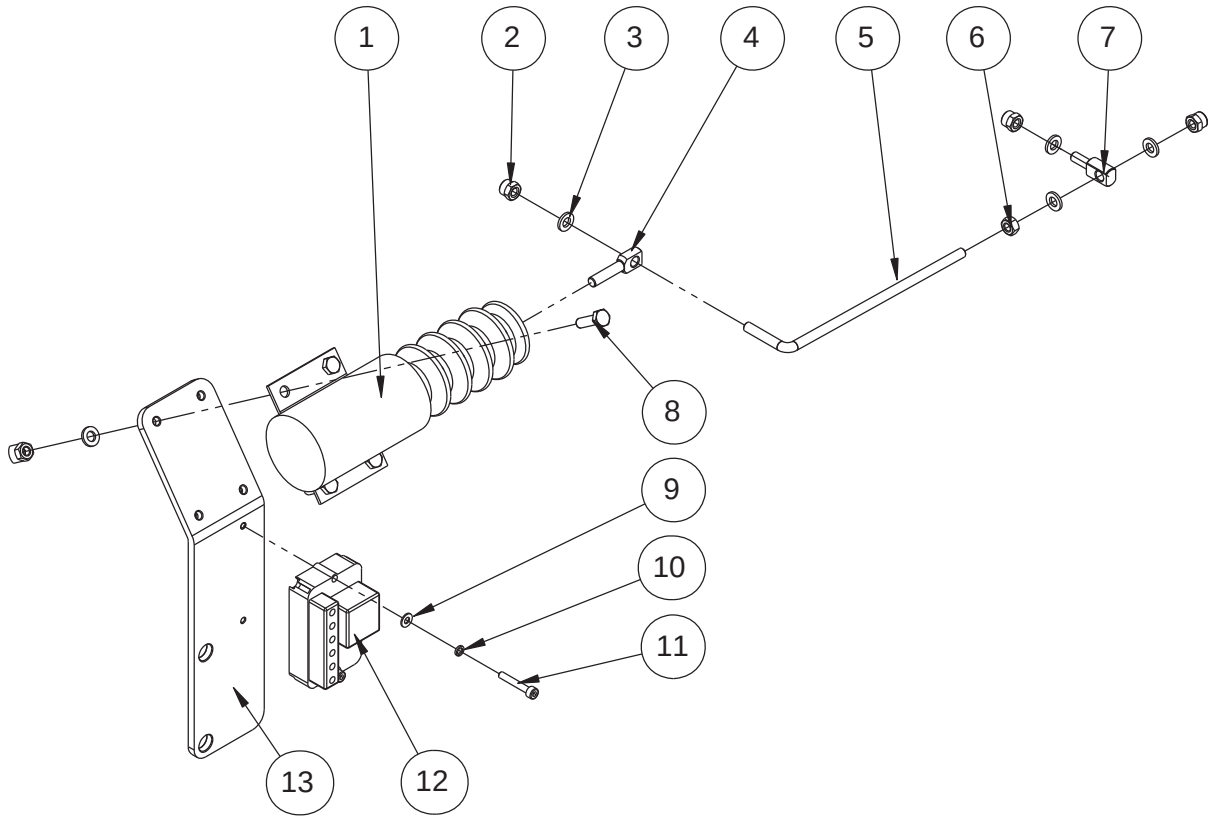

ILLUSTRATION No. Art_5417

69RT Series

Fuel System Assembly

Item	Part Number	Description	Qty.
1	92939	Throttle Solenoid	1
2	50047	NNYL M6	7
3	50000	WSHR M6 Standard Flat	13
4	42766	Throttle Screw	1
5	43210	Throttle Linkage	1
6	50396	NHEX M6	1
7	42767	Throttle Screw	1
8	50028	HHCS M6 × 20	4
9	50284	WSHR M4 Standard Flat	2
10	53062	WSHR M4 Spring Washer	2
11	53115	SHCS M4 × 25	2
12	92940	Solenoid Module	1
13	43213	Throttle Solenoid Bracket	1

Dual Fuel Engine Assembly

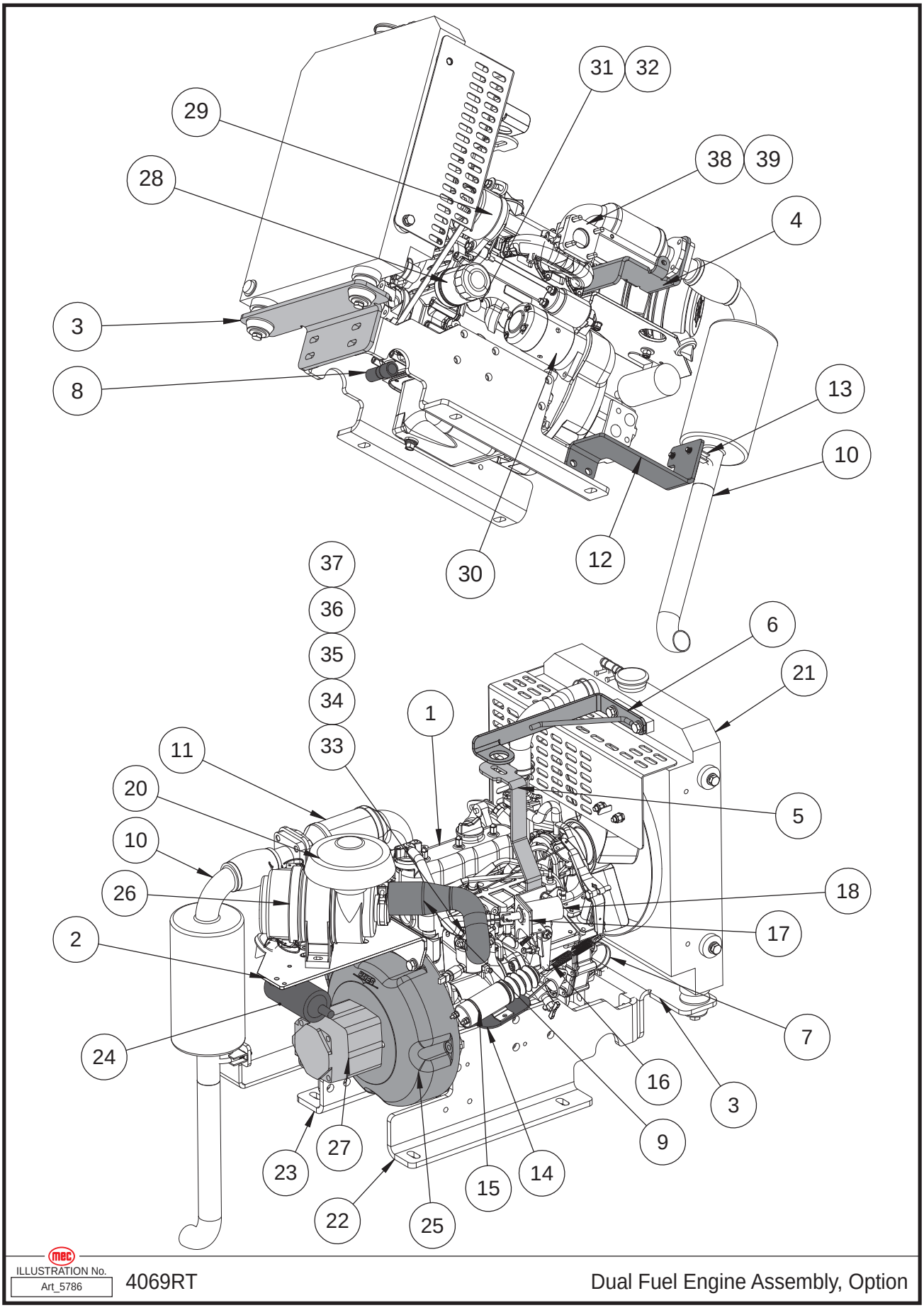

ILLUSTRATION No. Art_5786

4069RT

Dual Fuel Engine Assembly, Option

Item	Part Number	Description	Qty.
1	91125	Engine, Kubota DF752	1
2	43959	Air Cleaner MTG Plate, Dual Fuel	1
3	43962	Radiator Support, Dual Fuel	1
4	43963	Cat Conv Suppt Dual Fuel	1
5	43964	Radiator Strap Formed	1
6	43965	Top Radiator Strap Assy	1
7	43968	Lower Radiator Hose	1
8	43969	Radiator Hose Coupler	1
9	43970	Air Intake, Dual Fuel	1
10	44499	Muffler Assy, Catalytic	1
11	92969	Catylist, Exhaust	1
12	43974	Exhaust Bracket, Bottom	1
13	95380	Clamping U-Bolt 1.5"	1
14	32341	Throttle Brkt Dual Fuel	1
15	91589	Throttle Solenoid Dsl Engine	1
16	9252	Throttle Linkage	1
17	32340	Choke Solenoid Brkt Dual Fuel	1
18	9502	Solenoid - Guardian	1
19	9498	Choke Linkage	1
20	93632	Air Cleaner Assy	REF
21	--	Radiator Assy (Refer To Page 77)	REF
--	91136	Filter Element, Air	1
22	43960	Motor MTG RH	1
23	43961	Motor MTG LH	1
24	43186	Coil	1
25	95571	Hayes Adaptor 9T Pump	1
--	91765	Ring Gear	1
--	91766	Flywheel	1
26	95572	Hub Coupling 9T	1
27	93232	Rexroth Gear Pump 9T 14CC	1
28	8516	Oil Filter	1
29	90227	Alternator, 40 AMP	1
30	95631	Starter	1
31	91175	Oil Pressure Switch	1
32	HDW91187	Fitting, 1/8 NPT, M-F	1
33	91133	Carburetor Flange	1
34	91617	Carburetor Assembly	1
35	92944	Solenoid, Gas Shutoff (Carburetor)	1
36	92945	Solenoid, Propane Shutoff (Carburetor)	1
37	92946	Terminal Gas Shutoff Solenoid	1
38	91559	Gasket Muffler Flange	1
39	93439	Block Heater (Back of Head - Optional)	1

REF - Reference

Dual Fuel LPG Tank

DUAL FUEL MODELS

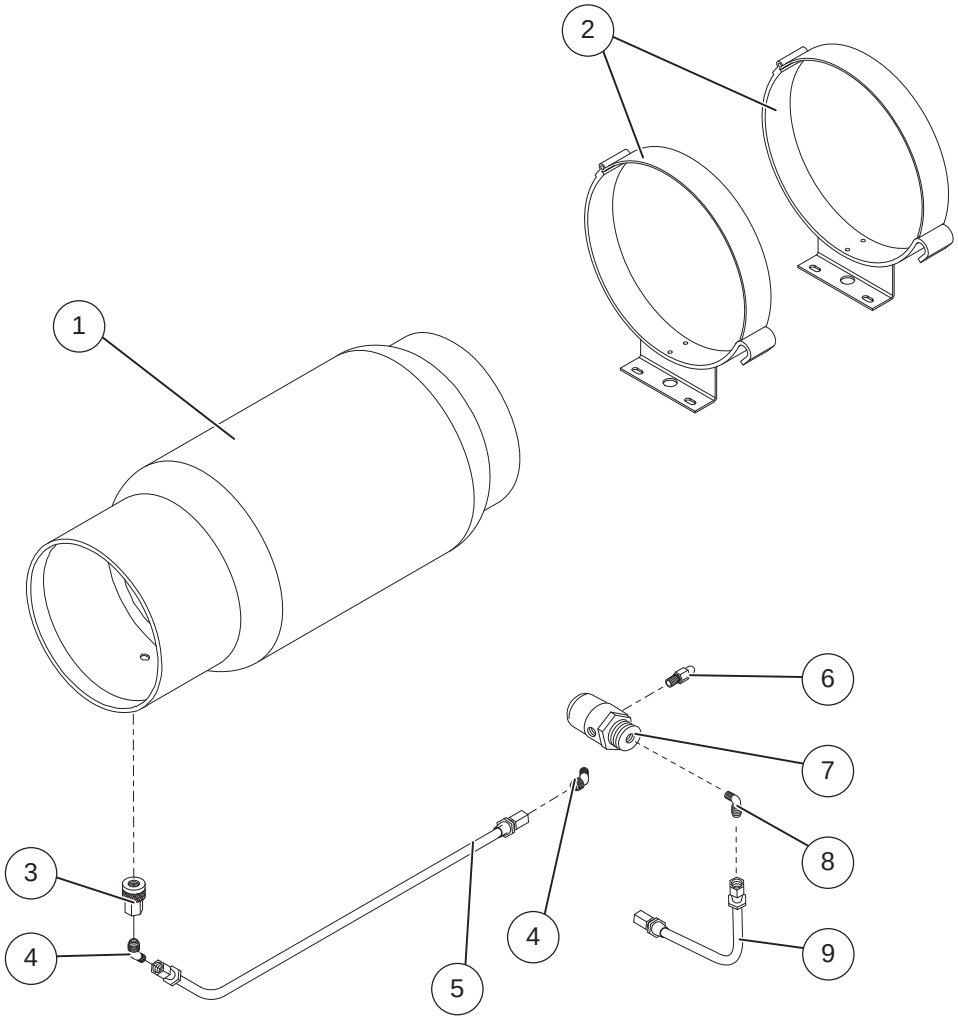

ILLUSTRATION No. ART_4606

4069RT

Dual Fuel LP Tank

Item	Part Number	Description	Qty.
1	6859	LP Tank	1
2	6860	Bracket, Tank Mount	2
3	6868	Quick Disconnect	1
4	HDW6894	Elbow, Brass, NPT to SAE 45°	2
5	6890	Hose Assembly, 30”	1
6	6938	Relief Valve	1
7	6861	Bulkhead Filter	1
8	HDW6727	Elbow, Brass NPT to SAE 90	1
9	7406	Hose Assembly, 90”	1

Outriggers and Ladder Installation

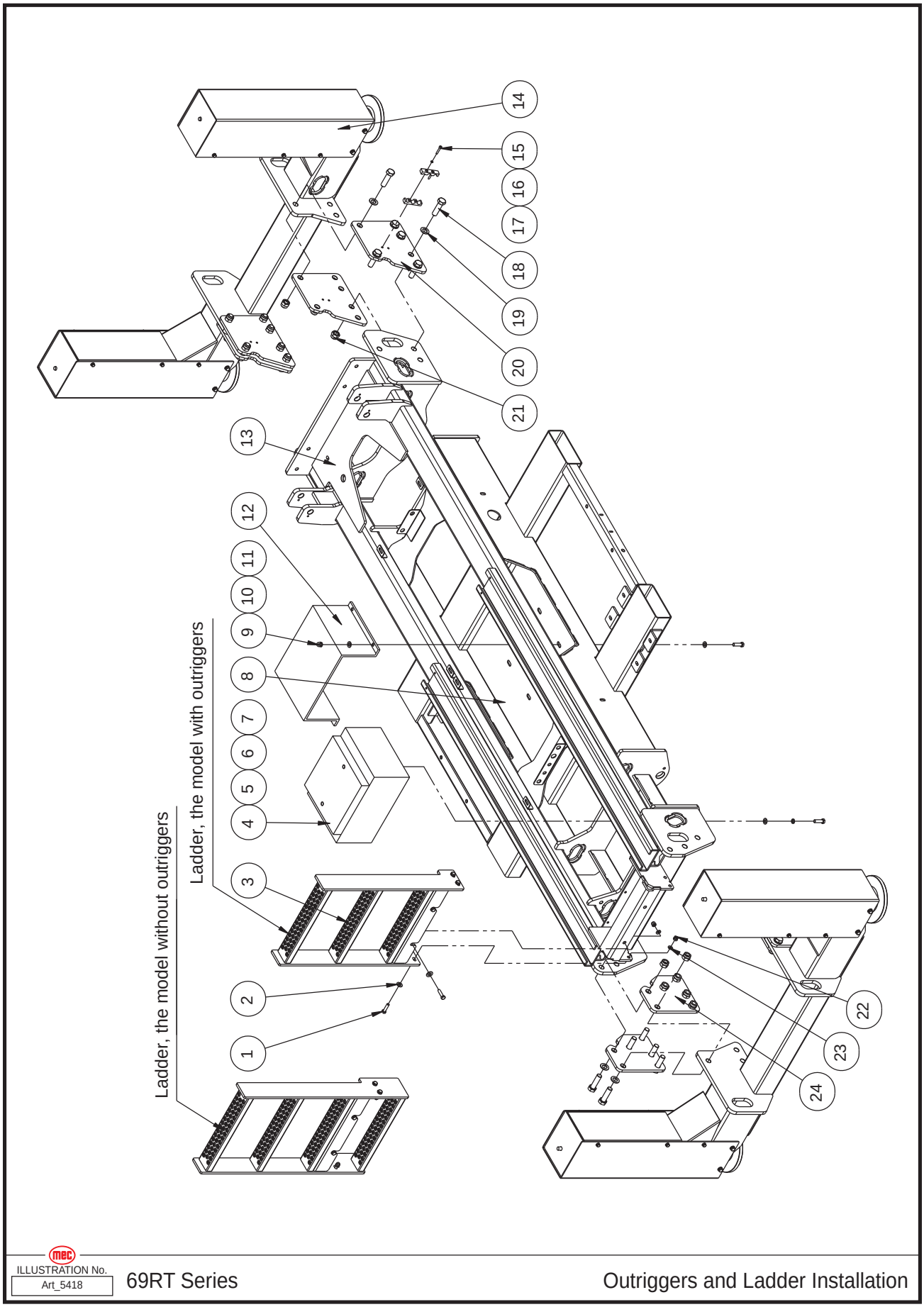

ILLUSTRATION No. Art_5418

69RT Series

Outriggers and Ladder Installation

Item	Part Number	Description	Qty.
1	50035	HHCS M10 × 40	6
2	50002	WSHR M10 Standard Flat	6
3	43214	Ladder (3369 With Outriggers)	1
	43215	Ladder (3369 Without Outriggers)	1
	43216	Ladder (4069 With Outriggers)	1
	43217	Ladder (4069 Without Outriggers)	1
4	43218	Counterweight (4069RT)	1
5	50003	WSHR M12 Standard Flat (4069RT)	2
6	53148	WSHR M12 Spring Washer (4069RT)	2
7	50040	HHCS M12 × 35 (4069RT)	2
8	43219	Counterweight (Model Without Outriggers)	1
9	50040	HHCS M12 × 35 (Model Without Outriggers)	4
10	50003	WSHR M12 Standard Flat (Model Without Outriggers)	8
11	50050	NNYL M12 (Model Without Outriggers)	4
12	43220	Cover	1
13	43006	Frame Weldment	1
14	REF	Outrigger Assembly (Option) (Refer To Page 93)	2
15	53207	SHCS M6 × 30	8
16	53046	WSHR M6 Spring Washer	8
17	43221	Hose Clamp	8
18	50488	HHCS M20 × 70	24
19	50005	WSHR M20 Standard Flat	24
20	43222	Outrigger Mount Plate	4
21	50052	NNYL M20	24
22	50049	NNYL M10	6
23	50002	WSHR M10 Standard Flat	6
24	43223	Outrigger Mount Plate	4

REF - Reference

Outrigger Assembly (Option)

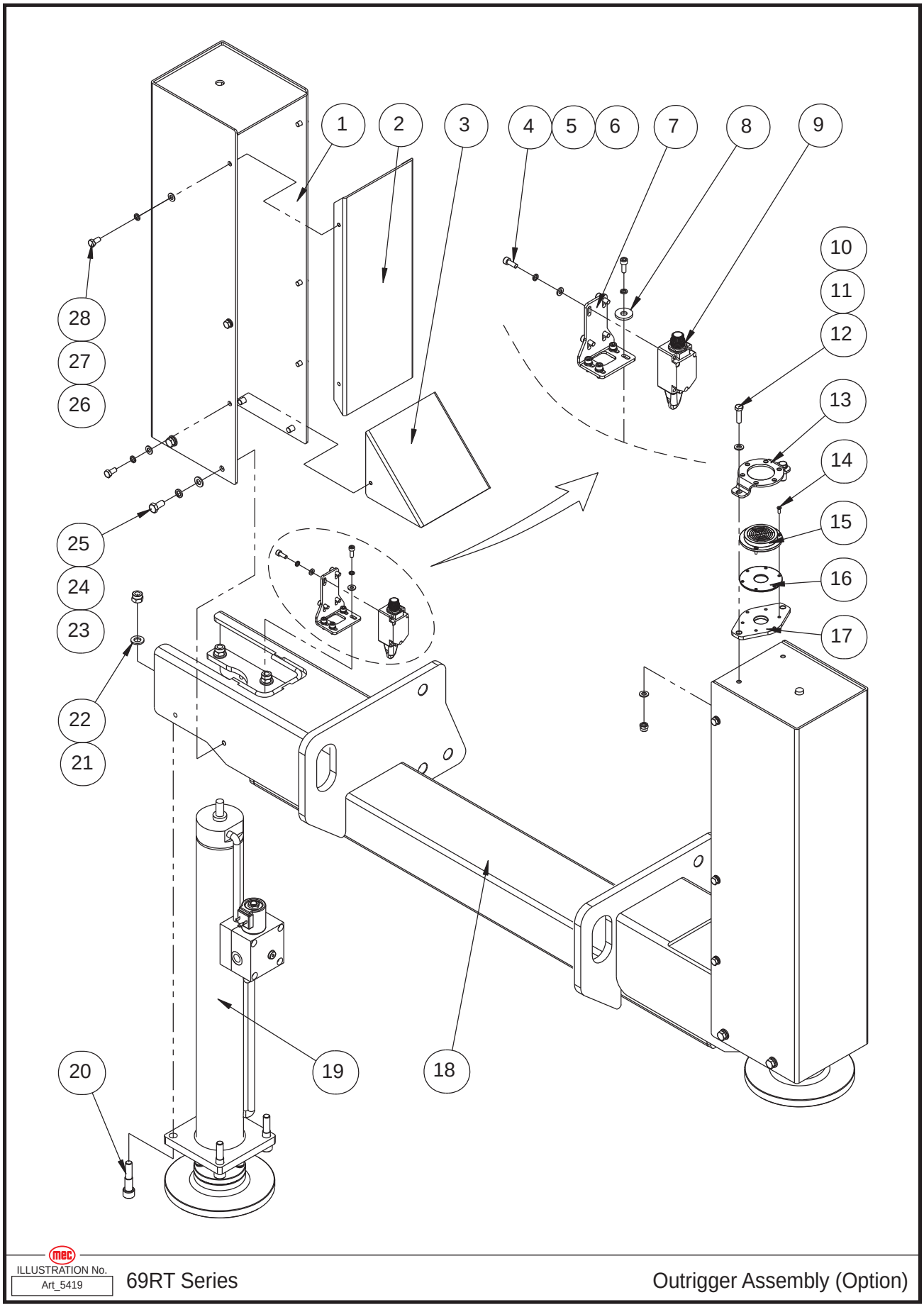

ILLUSTRATION No. Art_5419 69RT Series Outrigger Assembly (Option)

Item	Part Number	Description	Qty.
1	43224	Outrigger Housing	2
2	43225	Cover	2
3	43226	Cover	2
4	53138	SHCS M6 × 16	16
5	53046	WSHR M6 Spring Washer	16
6	50000	WSHR M6 Standard Flat	4
7	43227	Switch Bracket	2
8	50000	WSHR M6 Standard Flat	12
9	43228	Limit Switch	2
10	50332	HHCS M10 × 35	2
11	50002	WSHR M10 Standard Flat	2
12	50049	NNYL M10	2
13	43229	Bubble Level Cover	1
14	53045	HHMS M5 × 14	3
15	43230	Bubble Level	1
16	43231	Rubber Pad	1
17	43232	Bubble Level Mount Plate	1
18	43233	Outrigger Yoke	1
19	REF	Outrigger Cylinder Assembly (Refer To Page 141)	2
20	43234	Screw	8
21	50050	NNYL M12	8
22	50003	WSHR M12 Standard Flat	8
23	50215	HHCS M10 × 20	8
24	53054	WSHR M10 Spring Washer	8
25	50002	WSHR M10 Standard Flat	8
26	53154	HHCS M8 × 16	12
27	53055	WSHR M8 Spring Washer	12
28	50001	WSHR M8 Standard Flat	12

REF - Reference

Chassis Accessory Installation

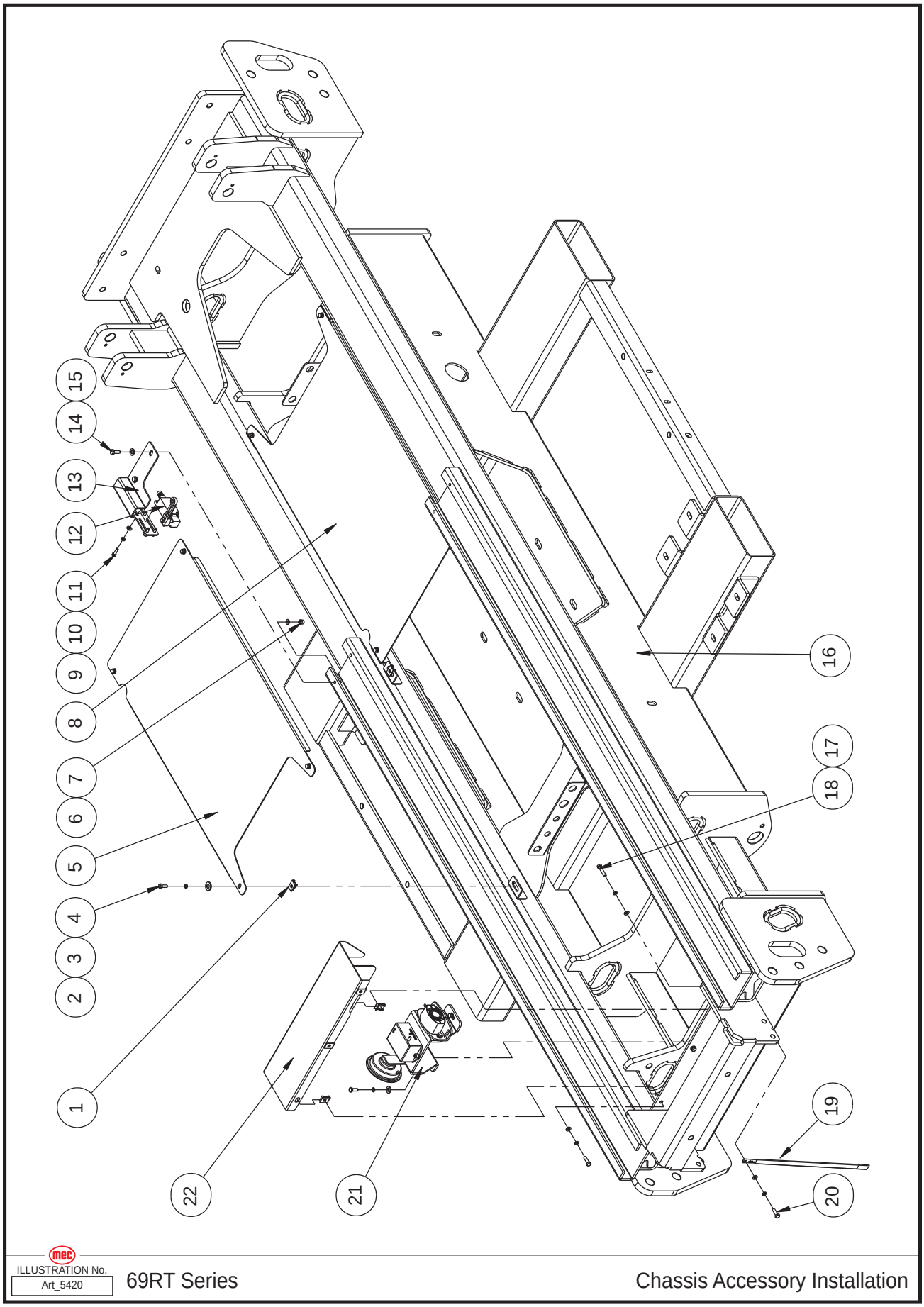

ILLUSTRATION No. Art_5420

69RT Series

Chassis Accessory Installation

Item	Part Number	Description	Qty.
1	43037	Nut	13
2	50445	HHCS M6 × 16	10
3	50000	WSHR M6 Standard Flat	10
4	53046	WSHR M6 Spring Washer	15
5	43235	Cover	1
6	50048	NNYL M8	2
7	50001	WSHR M8 Standard Flat	2
8	43236	Cover	1
9	53116	SHCS M5 × 12	4
10	53038	WSHR M5 Standard Flat	4
11	53043	WSHR M5 Spring Washer	4
12	42402	Limit Switch	1
13	43238	Switch Bracket	1
14	50031	HHCS M8 × 25	2
15	50001	WSHR M8 Standard Flat	2
16	43006	Frame Weldment	1
17	50214	HHCS M6 × 30	2
18	50000	WSHR M6 Standard Flat	5
19	43239	Ground Strap	1
20	50028	HHCS M6 × 20	3
21	REF	Electrical Accessory Assembly (Refer To Page 97)	1
22	43240	Cover	1

REF - Reference

Electrical Accessory Assembly

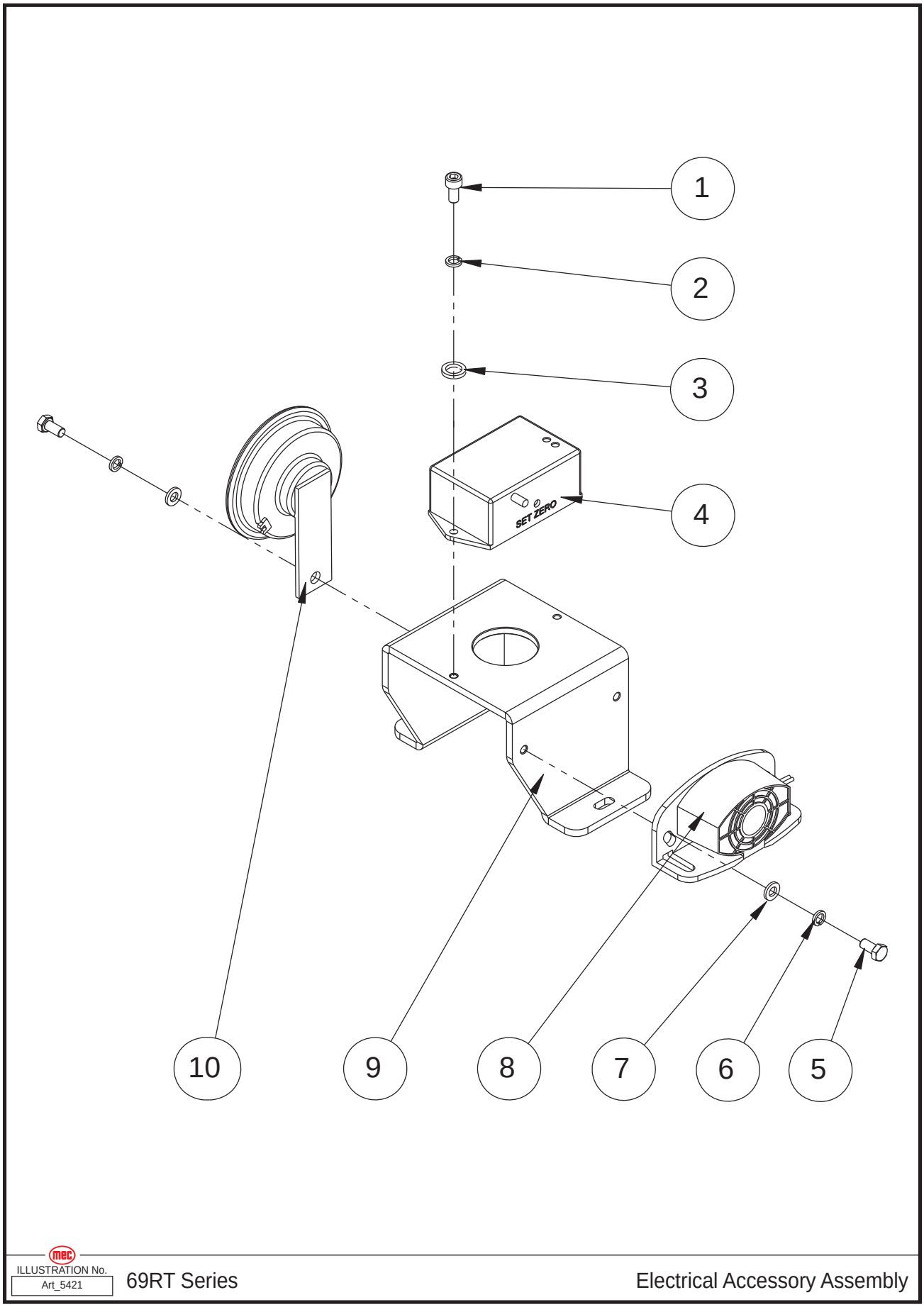

ILLUSTRATION No. Art_5421 69RT Series Electrical Accessory Assembly

Item	Part Number	Description	Qty.
1	53116	SHCS M5 × 12	2
2	53043	WSHR M5 Spring Washer	2
3	53038	WSHR M5 Standard Flat	2
4	43241	Tilt Sensor	1
5	50445	HHCS M6 × 16	3
6	53046	WSHR M6 Spring Washer	3
7	50000	WSHR M6 Standard Flat	3
8	42882	Alarm	1
9	43242	Mounting Plate	1
10	43243	Horn	1

Scissor Assembly - 3369

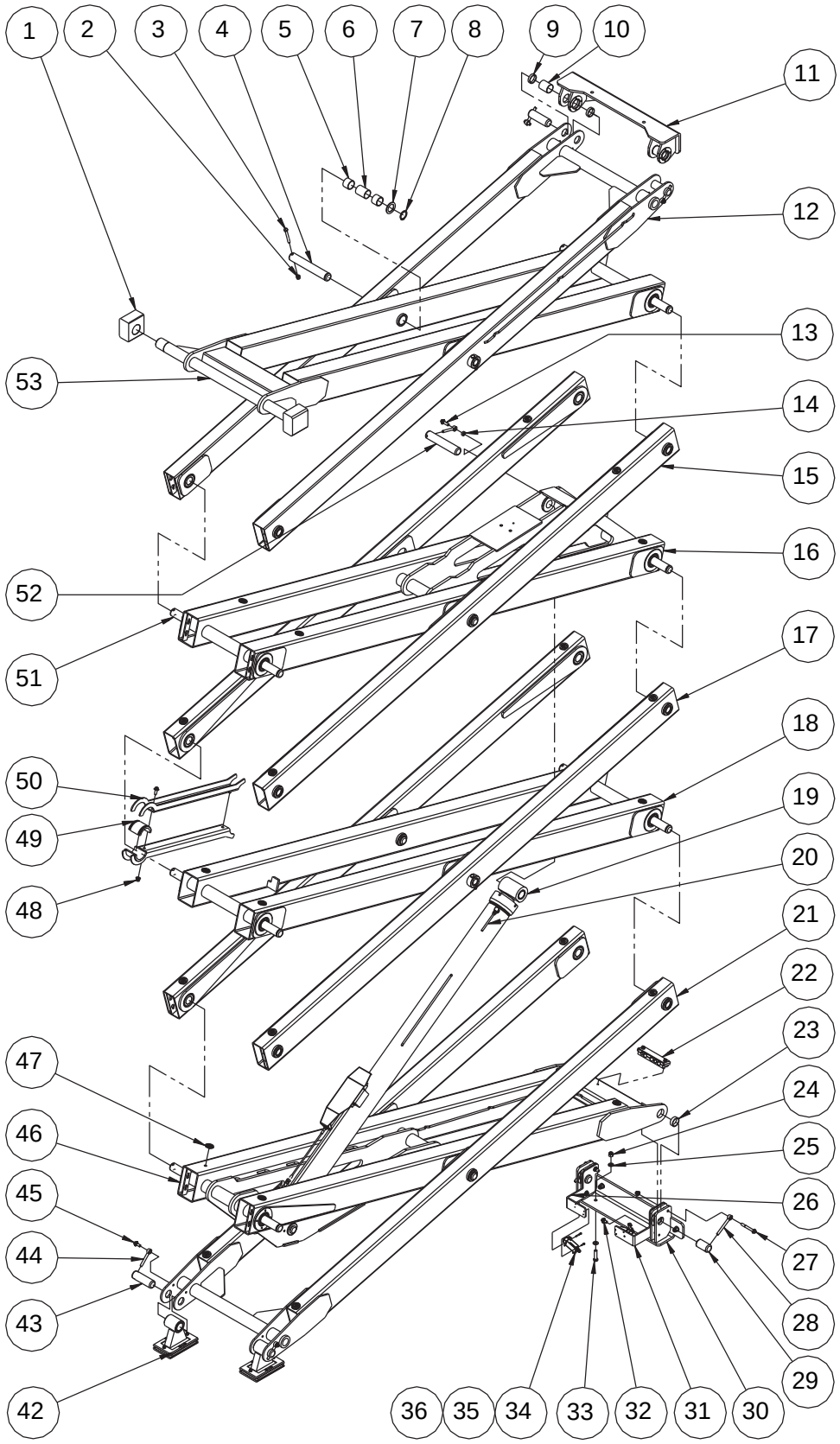

ILLUSTRATION No. Art_5422 69 Series Scissor Assembly - 3369

Item	Part Number	Description	Qty.
1	43244	Platform Slider	2
2	50049	NNYL M10	12
3	50352	HHCS M10 × 80	12
4	43245	Pin	4
5	41105	Bearing	24
6	43246	Spacer Sleeve 2	4
7	43247	Washer	12
8	43248	Circlips	12
9	43249	Bearing	4
10	43250	Spacer Sleeve 1	2
11	43251	Platform Pivot Weldment	1
12	43252	Outer Arm 4	1
13	50332	HHCS M10 × 35	2
14	43253	Washer	2
15	43254	Outer Arm 3	1
16	43255	Inner Arm 3	1
17	43256	Outer Arm 2	1
18	43257	Inner Arm 2	1
19	REF	Lower Lift Cylinder Assembly (Refer To Page 131)	1
20	43258	Hose	1
21	43259	Outer Arm 1	1
22	43546	Hose Clamp Assembly (Refer To Page 109)	1
23	43260	Bearing	2
24	50050	NNYL M12	6
25	50003	WSHR M12 Standard Flat	12
26	43261	Switch Bracket	1
27	50352	HHCS M10 × 80	2
28	43262	Pin	2
29	43263	Pin	2
30	43264	Chassis Link Pivot Weldment	1
31	43265	Switch Bracket	1
32	50215	HHCS M10 × 20	2
33	50023	HHCS M12 × 50	6
34	42074	Limit Switch	2
35	53065	SHCS M4 × 30	4
36	53113	SHCS M4 × 16	4
37	--	--	--
38	--	--	--
39	--	--	--
40	--	--	--
41	--	--	--
42	REF	Slider Assembly (Refer To Page 107)	2
43	43269	Pin	4
44	41431	Pin	6
45	50033	HHCS M10 × 25	6

46	43270	Inner Arm 1	1
47	41114	Block	24
48	50049	NNYL M10	4
49	43272	Safety Arm Bushing	2
50	43273	Safety Arm	2
51	43274	Pin	8
52	43275	Pin	2
53	43276	Inner Arm 4	1

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Scissor Assembly - 4069

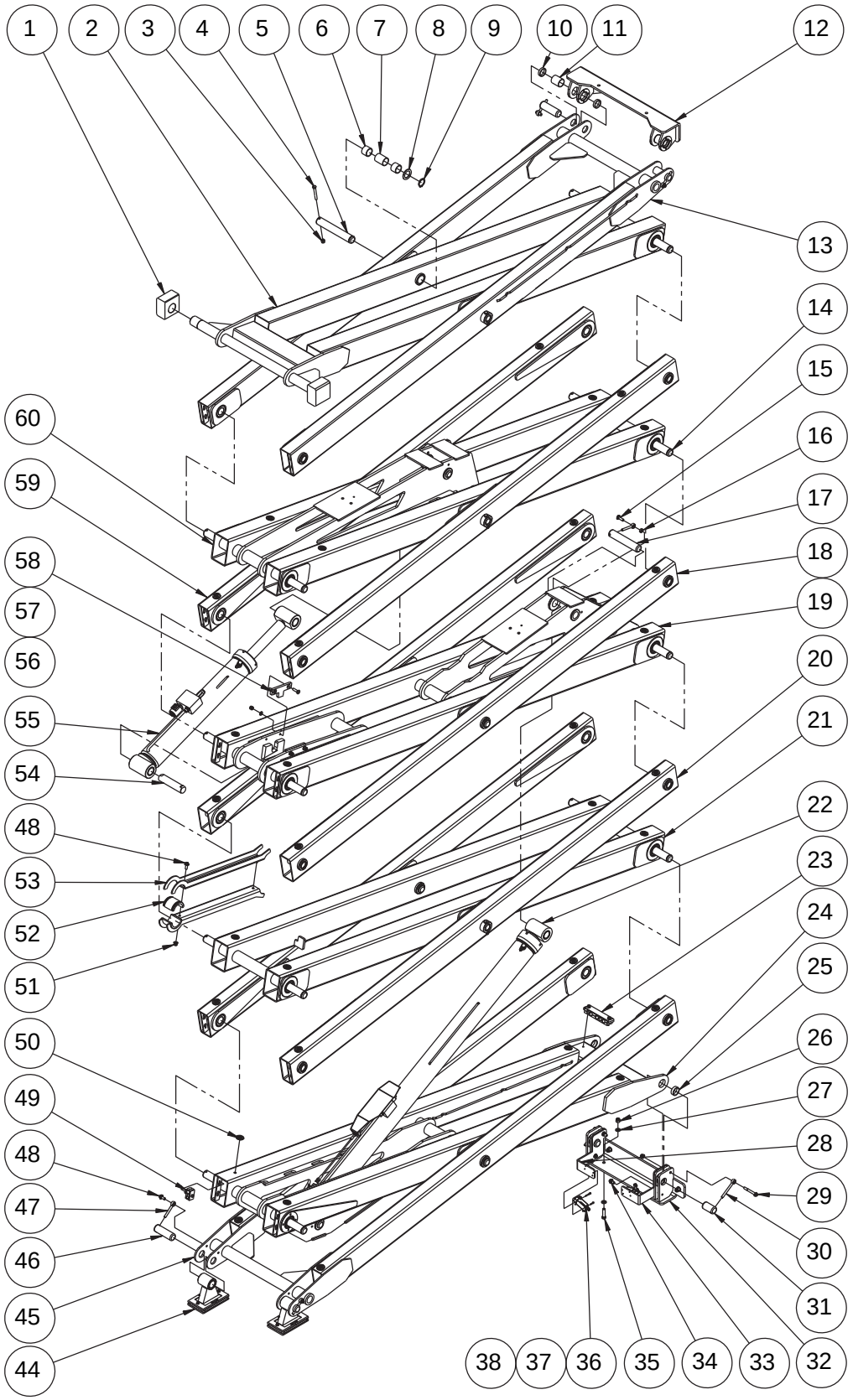

ILLUSTRATION No. Art_5423 69 Series Scissor Assembly - 4069

Item	Part Number	Description	Qty.
1	43244	Platform Slider	2
2	43276	Inner Arm 4	1
3	50049	NNYL M10	20
4	50352	HHCS M10 × 80	16
5	43245	Pin	6
6	41105	Bearing	32
7	43246	Spacer Sleeve 2	6
8	43247	Washer	16
9	43248	Circlips	16
10	43249	Bearing	4
11	43250	Spacer Sleeve 1	2
12	43251	Platform Pivot Weldment	1
13	43252	Outer Arm 4	1
14	43274	Pin	10
15	50332	HHCS M10 × 35	3
16	43253	Washer	3
17	43275	Pin	3
18	43277	Outer Arm 3	1
19	43278	Inner Arm 3	1
20	43256	Outer Arm 2	1
21	43257	Inner Arm 2	1
22	REF	Lower Lift Cylinder Assembly (Refer To Page 131)	1
23	43546	Hose Clamp Assembly (Refer To Page 109)	1
24	43270	Inner Arm 1	1
25	43260	Bearing	2
26	50050	NNYL M12	6
27	50003	WSHR M12 Standard Flat	12
28	43261	Switch Bracket	1
29	50352	HHCS M10 × 80	2
30	43262	Pin	2
31	43263	Pin	2
32	43264	Chassis Link Pivot Weldment	1
33	43265	Switch Bracket	1
34	50215	HHCS M10 × 20	2
35	50023	HHCS M12 × 50	6
36	42074	Limit Switch	2
37	53065	SHCS M4 × 30	4
38	53113	SHCS M4 × 16	4
39	--	--	--
40	--	--	--
41	--	--	--
42	--	--	--
43	--	--	--
44	REF	Slider Assembly (Refer To Page 107)	2
45	43259	Outer Arm 1	1

46	43269	Pin	4
47	41431	Pin	7
48	50033	HHCS M10 × 25	6
49	43547	Hose Clamp Assembly - 4069 (Refer To Page 111)	2
50	41114	Block	32
51	50049	NNYL M10	4
52	43272	Safety Arm Bushing	2
53	43273	Safety Arm	2
54	43279	Pin	1
55	REF	Upper Lift Cylinder Assembly (Refer To Page 133)	1
56	50002	WSHR M10 Standard Flat	4
57	53230	CSCS M10 × 40	4
58	43280	Pin Fixing Plate	2
59	43281	Outer Arm 4	1
60	43282	Inner Arm 4	1

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Slider Assembly

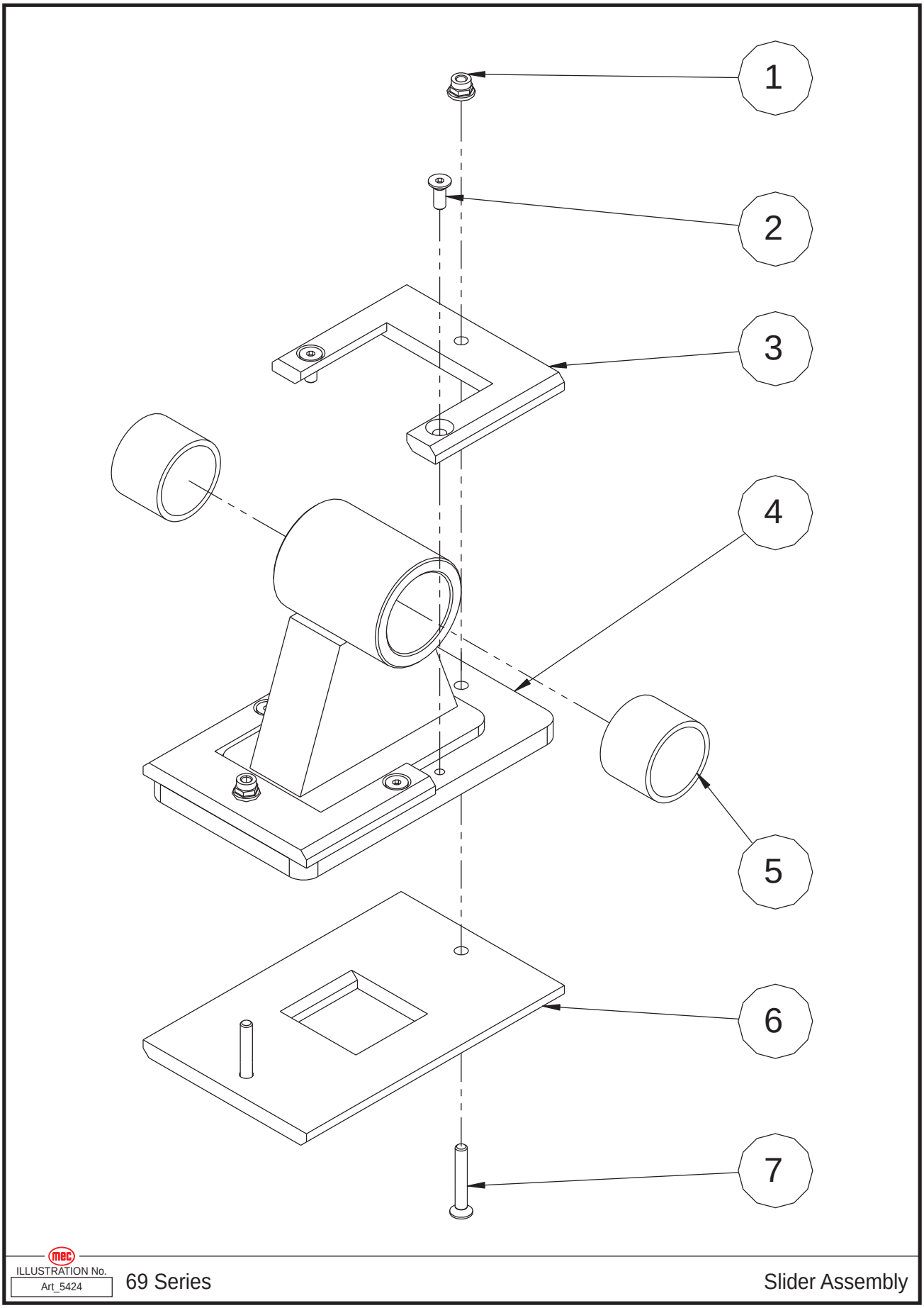

ILLUSTRATION No. Art_5424

69 Series

Slider Assembly

Item	Part Number	Description	Qty.
1	50047	NNYL M6	2
2	53226	CSCS M6 × 16	4
3	43283	Upper Slider	2
4	43284	Slider Foot Weldment	1
5	41105	Bearing	2
6	43285	Lower Slider	1
7	50289	HHCS M6 × 40	2

Hose Clamp Assembly

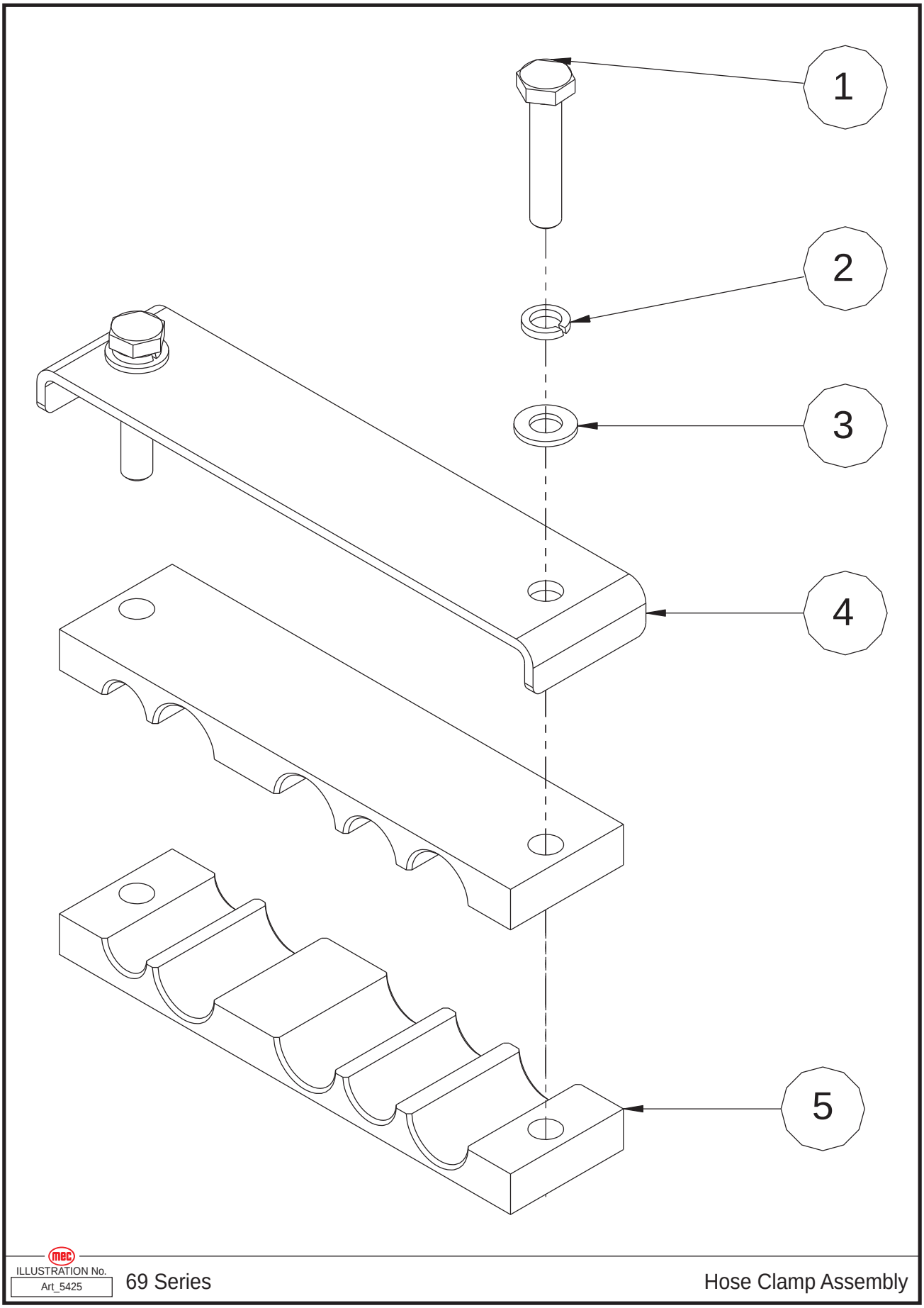

ILLUSTRATION No. Art_5425 69 Series Hose Clamp Assembly

Item	Part Number	Description	Qty.
1	50014	HHCS M8 × 40	2
2	53055	WSHR M8 Spring Washer	2
3	50001	WSHR M8 Standard Flat	2
4	43286	Base Plate	1
5	43287	Hose Clamp	2

Hose Clamp Assembly - 4069

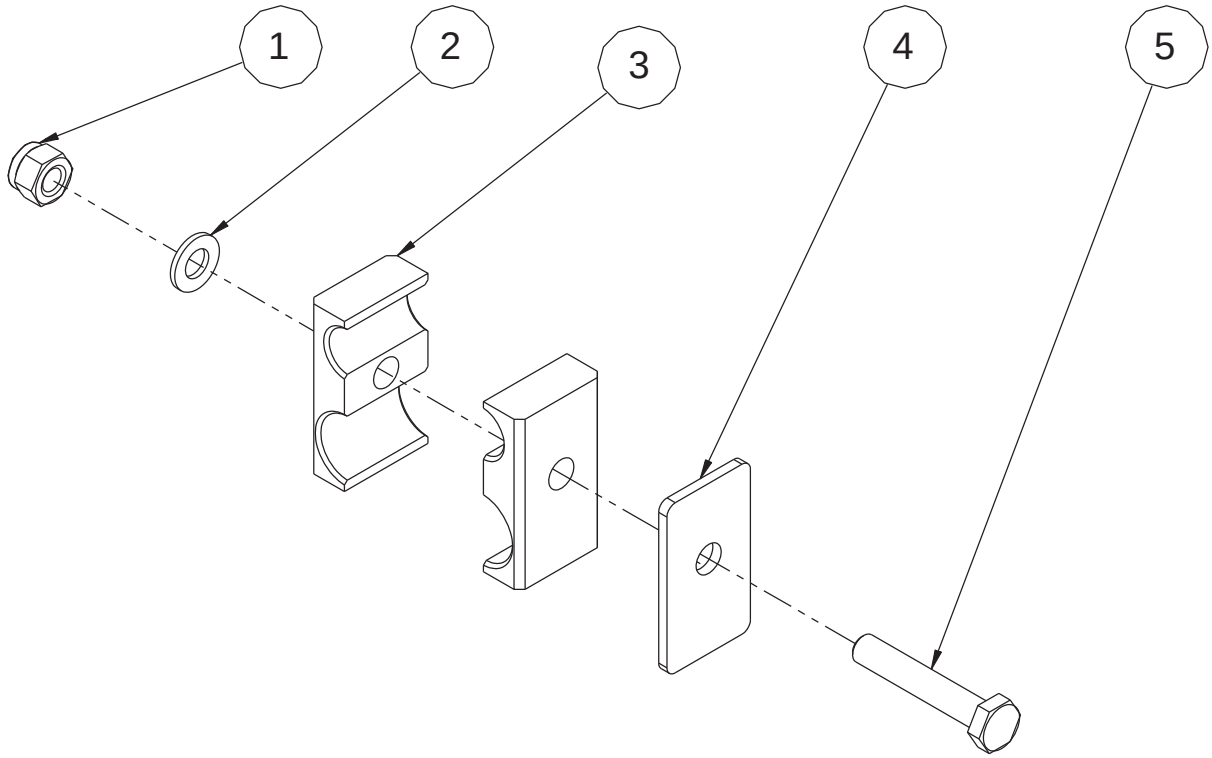

ILLUSTRATION No. Art_5426

69 Series

Hose Clamp Assembly - 4069

Item	Part Number	Description	Qty.
1	50048	NNYL M8	1
2	50001	WSHR M8 Standard Flat	1
3	43288	Hose Clamp	2
4	43289	Base Plate	1
5	50057	HHCS M8 × 45	1

Main Platform Assembly

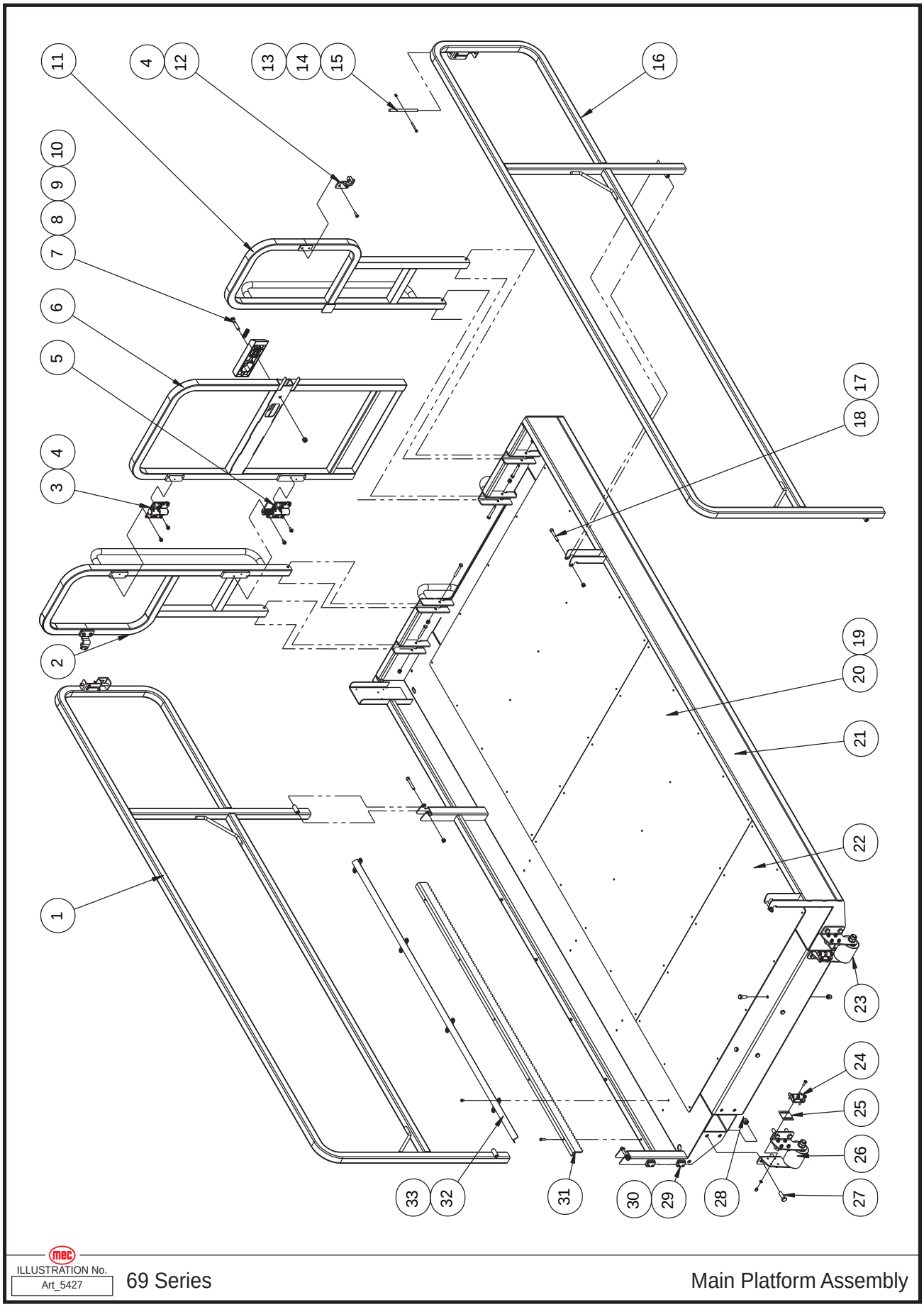

ILLUSTRATION No. Art_5427

69 Series

Main Platform Assembly

Item	Part Number	Description	Qty.
1	43290	Right Main Rail	1
2	43291	Right Door Rail	1
3	41127	Hinge A	1
4	53227	HHCS M6 × 14	21
5	41128	Hinge B	1
6	43294	Entry Gate	1
7	50021	HHCS M10 × 55	1
8	41125	Spring	1
9	41124	Latch Handle	1
10	50049	NNYL M10	1
11	43297	Left Door Rail	1
12	43298	Lock Pin	2
13	53067	SHCS M5 × 40	2
14	50524	NNYL M5	2
15	43299	Inserted Pin Rod	2
16	43300	Left Main Rail	1
17	53129	SHCS M8 × 60	8
18	50048	NNYL M8	8
19	43301	Rivet	50
20	43302	Main Platform Deck Plate 1	2
21	43303	Main Deck Weldment	1
22	43304	Main Platform Deck Plate 2	1
23	REF	Support Roller Assembly (Refer To Page 115)	1
24	REF	Side Roller Assembly (Refer To Page 117)	4
25	43305	Adjusting Plate	4
26	REF	Support Roller Assembly (Refer To Page 115)	1
27	50040	HHCS M12 × 35	10
28	50050	NNYL M12	12
29	41059	Wire Clip	4
30	53113	SHCS M4 × 16	4
31	43307	Extension Deck Lock Tooth	1
32	43308	Roller Track	2
33	53228	BHCS M6 × 10	16

REF - Reference

Support Roller Assembly

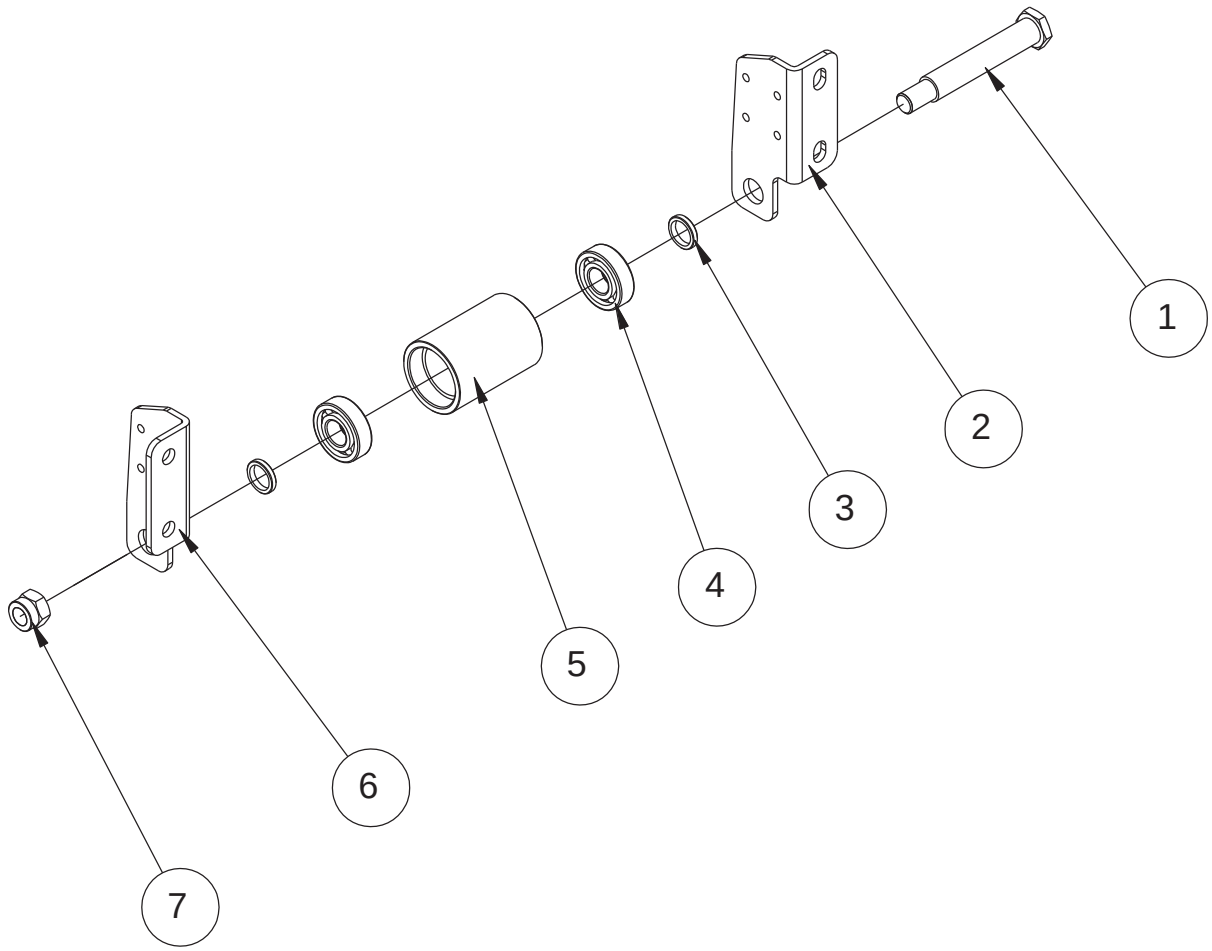

ILLUSTRATION No. Art_5428

69 Series

Support Roller Assembly

Item	Part Number	Description	Qty.
1	43309	Pin	1
2	43310	Roller Bracket 2	1
3	43311	Shim	2
4	41131	Bearing	2
5	43312	Roller	1
6	43313	Roller Bracket	1
7	50051	NNYL M16	1

Side Roller Assembly

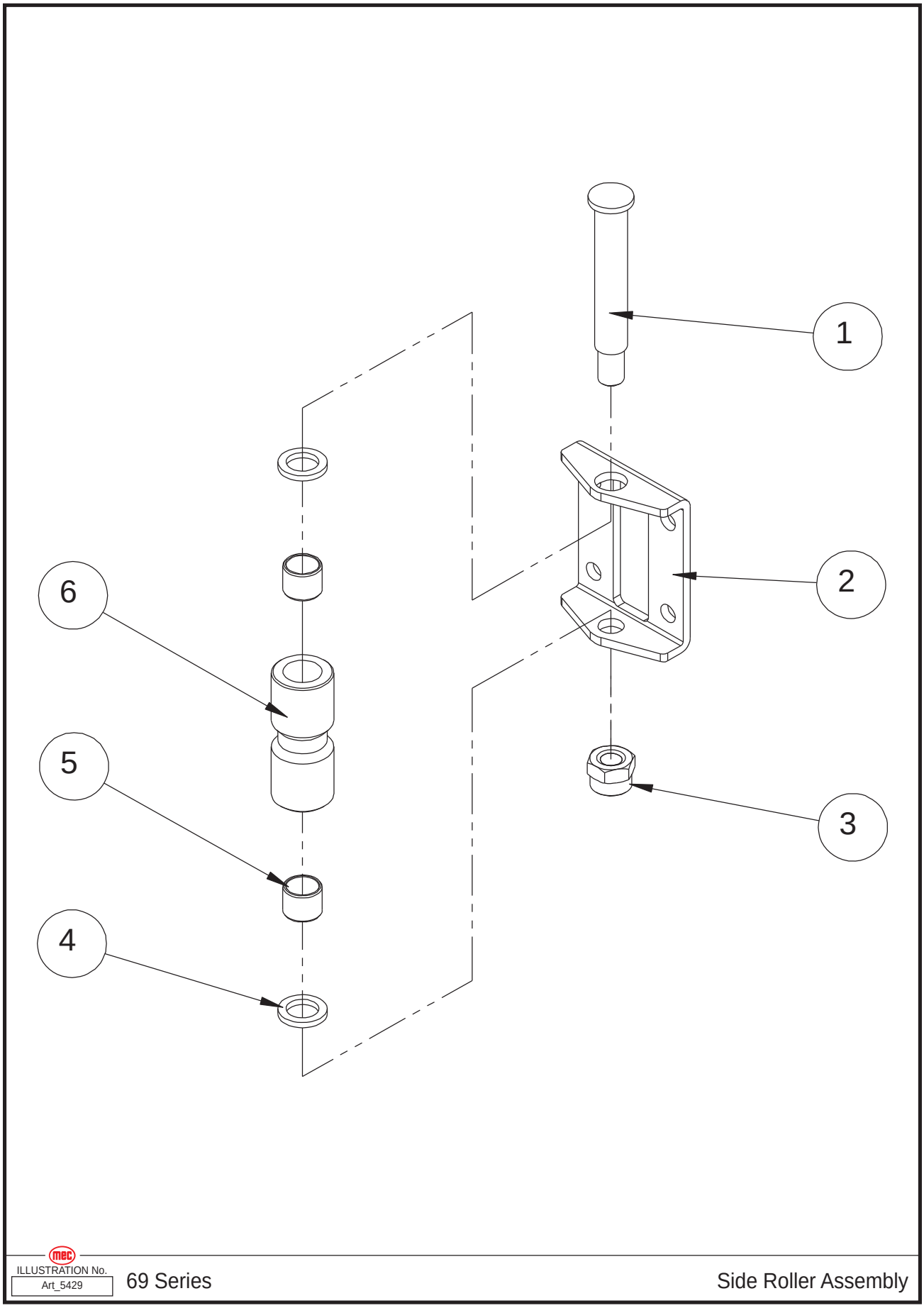

ILLUSTRATION No. Art_5429 69 Series Side Roller Assembly

Item	Part Number	Description	Qty.
1	43314	Pin	1
2	43315	Roller Bracket	1
3	50048	NNYL M8	1
4	50002	WSHR M10 Standard Flat	2
5	43316	Bearing	2
6	43317	Roller	1

Platform Extension Assembly

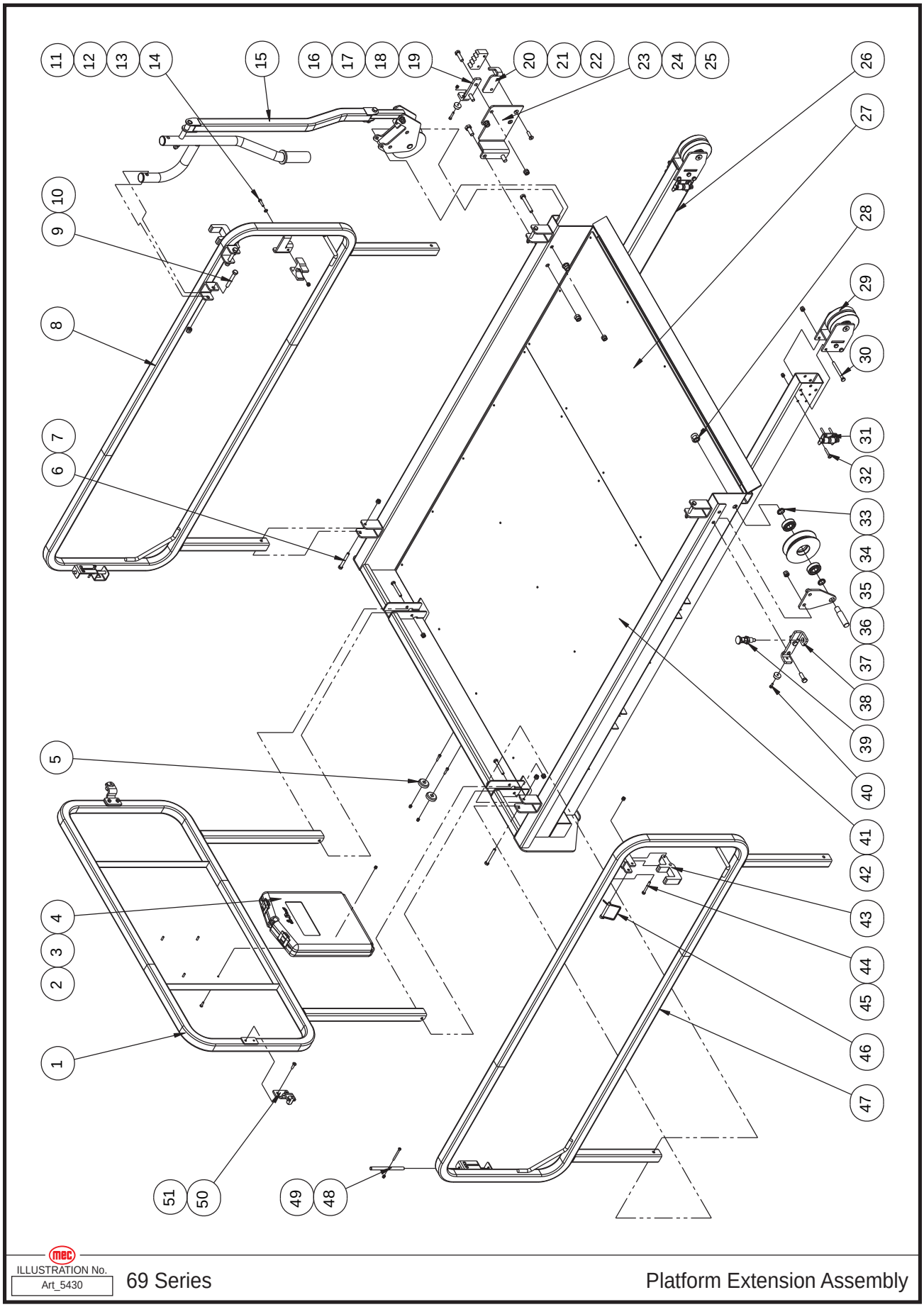

ILLUSTRATION No. Art_5430

69 Series

Platform Extension Assembly

Item	Part Number	Description	Qty.
1	43318	Front Rail	1
2	53223	THMS M5 × 16	4
3	50524	NNYL M5	9
4	43319	Manual Box	1
5	43320	Bumper	2
6	53129	SHCS M8 × 60	6
7	50048	NNYL M8	12
8	43322	Right Extension Rail	1
9	50383	HHCS M10 × 70	4
10	50049	NNYL M10	10
11	50047	NNYL M6	9
12	43323	Catch Clip	1
13	50000	WSHR M6 Standard Flat	1
14	50117	HHCS M6 × 25	1
15	REF	Platform Locking Device Assembly (Refer To Page 123)	1
16	41120	Bumper	2
17	53179	HHCS M5 × 20	3
18	50332	HHCS M10 × 35	4
19	43325	Locating Plate 1	1
20	43326	Lock Tooth Seat	1
21	43327	Lock Tooth	1
22	50031	HHCS M8 × 25	2
23	43328	Lock Seat	1
24	50039	HHCS M12 × 30	2
25	50050	NNYL M12	2
26	43329	Extension Deck Weldment	1
27	43330	Platform Extension Deck Plate 1	1
28	50051	NNYL M16	1
29	REF	Roller Assembly (Refer To Page 125)	2
30	50018	HHCS M8 × 80	6
31	REF	Side Roller Assembly (Refer To Page 117)	4
32	50226	BHCS M6 × 65	8
33	43332	Washer	2
34	41131	Bearing	4
35	43333	Roller	2
36	43334	Roller Bracket	1
37	43335	Pin	1
38	43336	Locating Plate 2	1
39	43337	Lock Pin	1
40	53224	THMS M5 × 12	1
41	43338	Platform Extension Deck Plate 2	1
42	43301	Rivet	47
43	43339	Rail Spacer	2
44	50294	HHCS M6 × 45	2
45	50047	NNYL M6	10

46	43340	Inserted Pin	2
47	43341	Left Extension Rail	1
48	43299	Inserted Pin Rod	2
49	53067	SHCS M5 × 40	2
50	43298	Lock Pin	2
51	53227	HHCS M6 × 14	4

REF - Reference

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Platform Locking Device Assembly

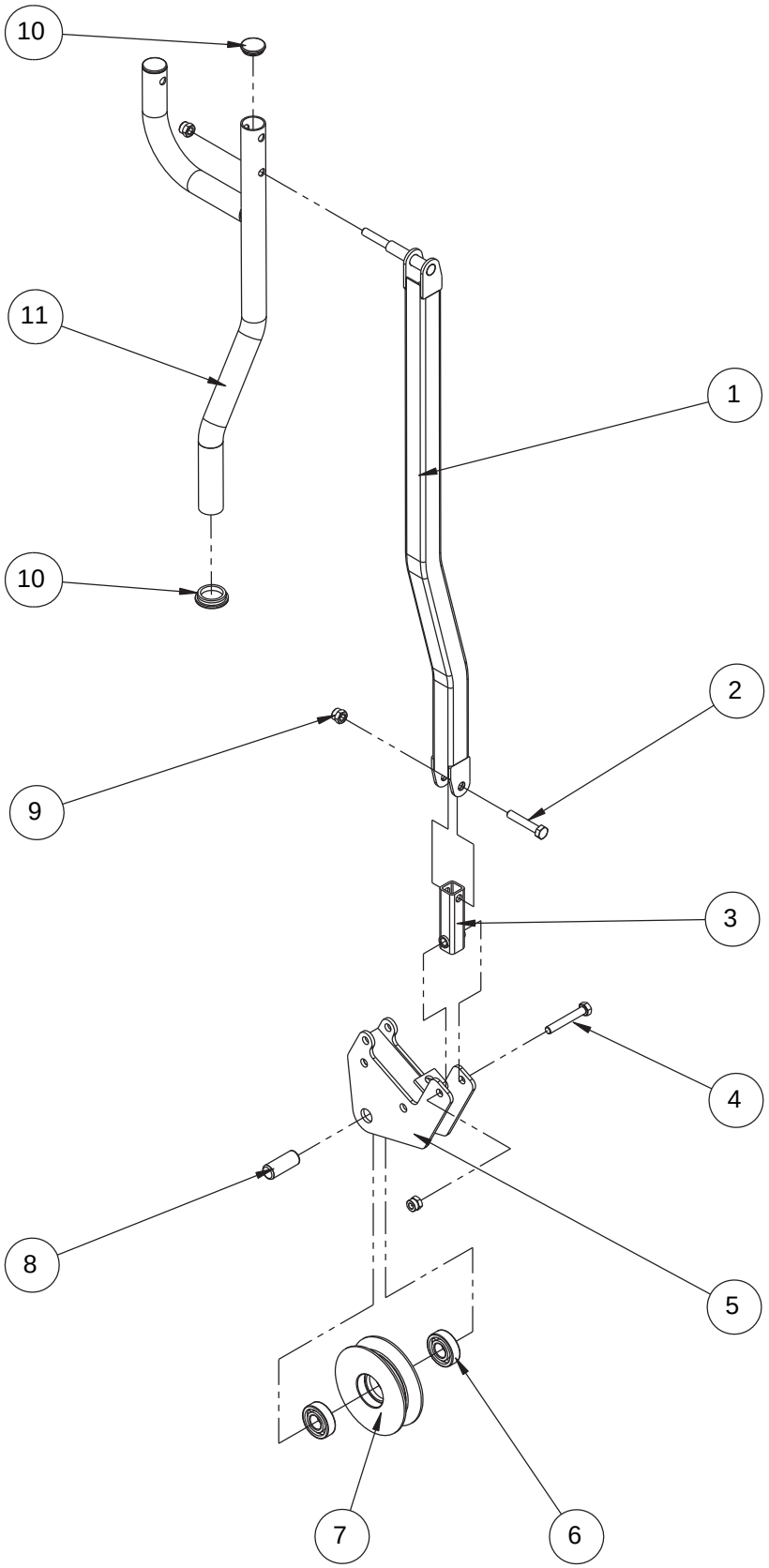


ILLUSTRATION No.
Art_5431

69 Series

Platform Locking Device Assembly

Item	Part Number	Description	Qty.
1	43342	Tie Rod Weldment	1
2	50021	HHCS M10 × 55	1
3	43343	Connection Rod	1
4	50383	HHCS M10 × 70	4
5	43344	Roller Bracket	1
6	41131	Bearing	2
7	43333	Roller	1
8	43345	Pin	1
9	50049	NNYL M10	2
10	43348	Cover	3
11	43347	Handle	1

Roller Assembly

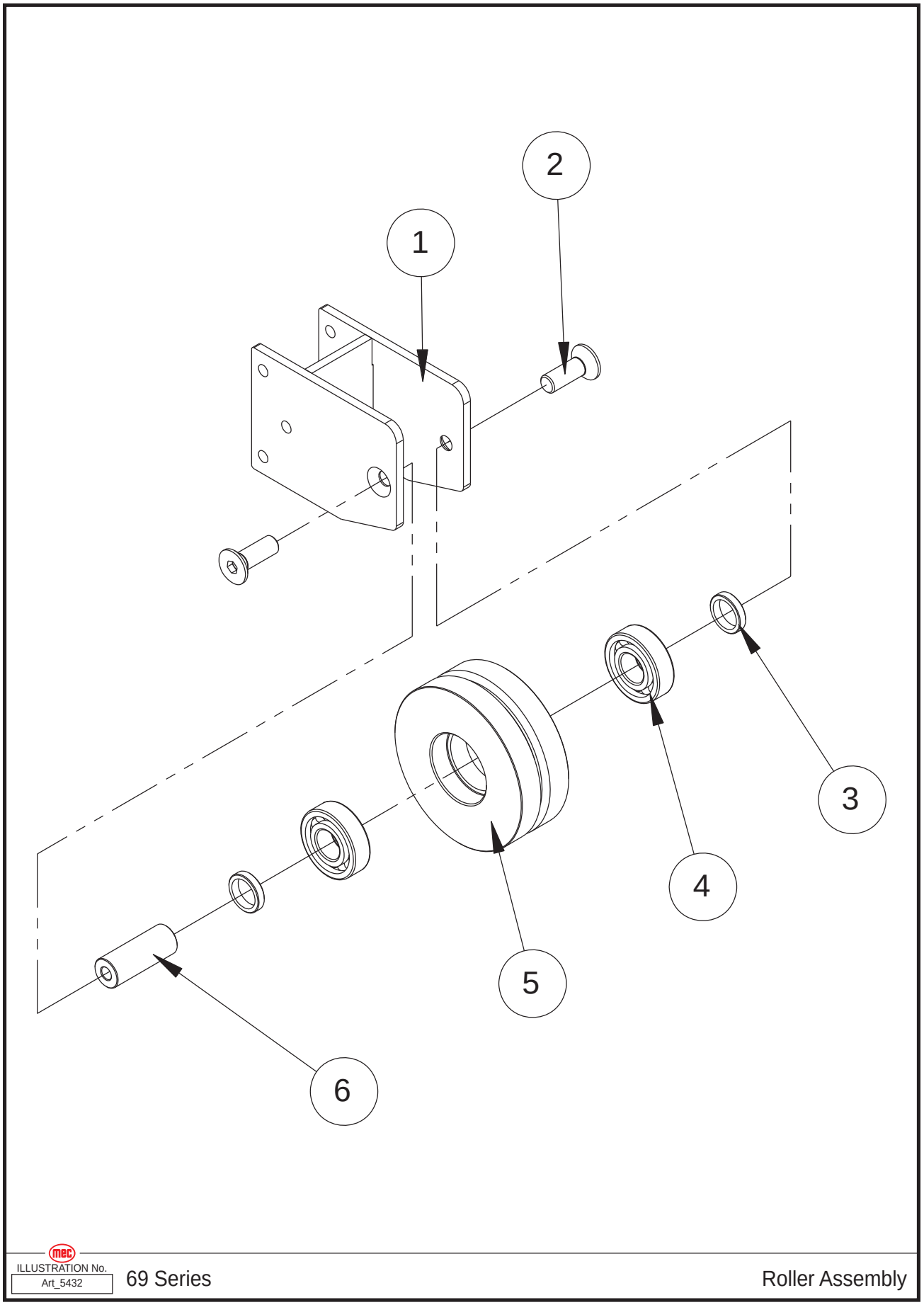


ILLUSTRATION No. Art_5432 69 Series Roller Assembly

Item	Part Number	Description	Qty.
1	43349	Roller Bracket	1
2	50297	BHCS M10 × 25	2
3	43350	Washer	2
4	41131	Bearing	2
5	43351	Roller	1
6	43352	Pin	1

Platform Control and Sheet Material Tray

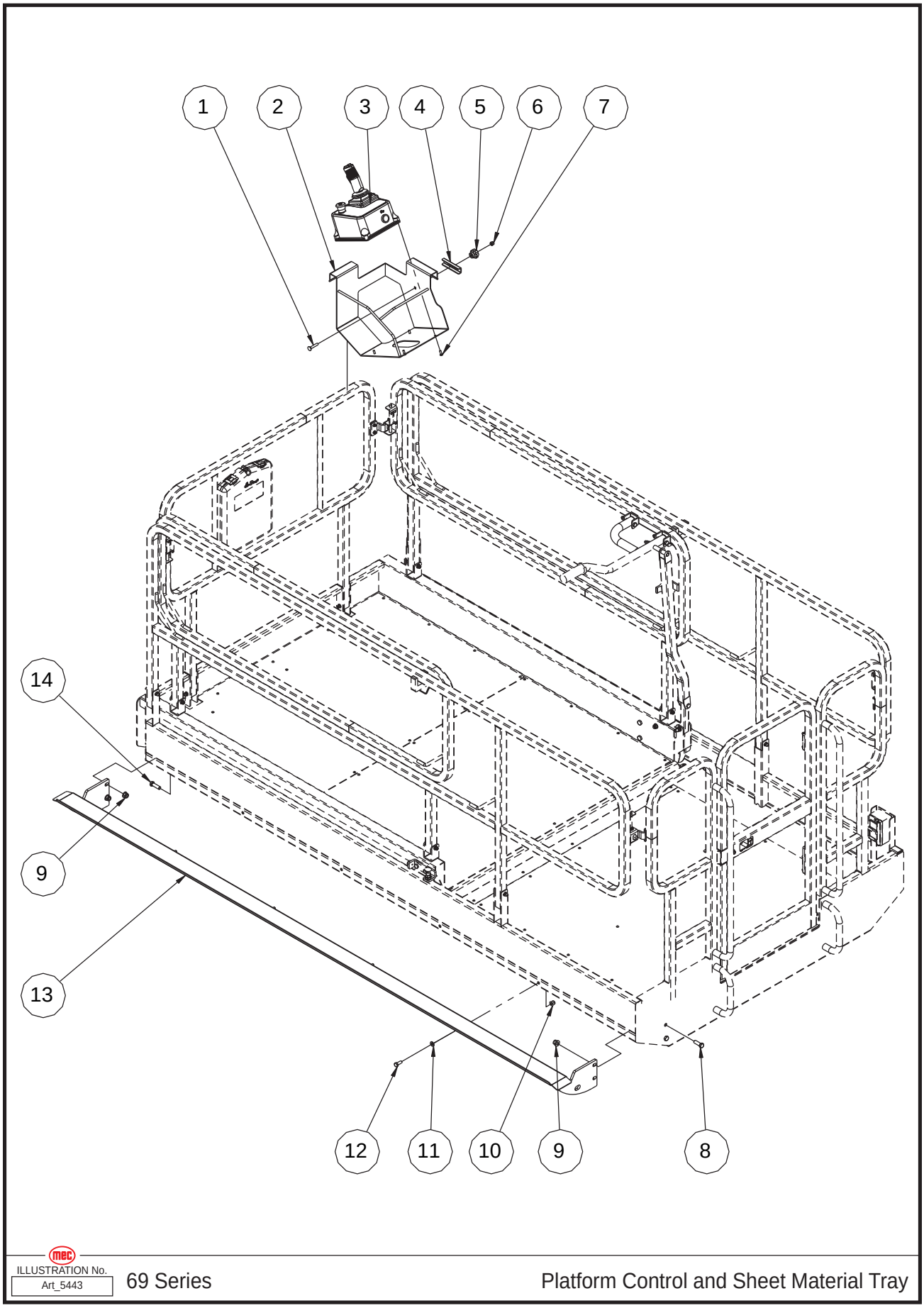


ILLUSTRATION No. Art_5443 69 Series Platform Control and Sheet Material Tray

Item	Part Number	Description	Qty.
1	53248	CARB M8 × 45	1
2	43321	Platform Control Box Mount Bracket	1
3	43544	**Platform Control Box Assembly (Refer To Page 127)**	1
4	42500	Locating Plate	1
5	43453	Handle	1
6	50048	NNYL M8	1
7	53231	PHMS M6 × 16	4
8	50040	HHCS M12 × 35	2
9	50050	NNYL M12	4
10	50049	NNYL M10	4
11	50002	WSHR M10 Standard Flat	4
12	50033	HHCS M10 × 25	4
13	42878	Sheet Material Tray	1
14	53247	HHCS M12 x 40	2

REF - Reference

Platform Control Box Assembly

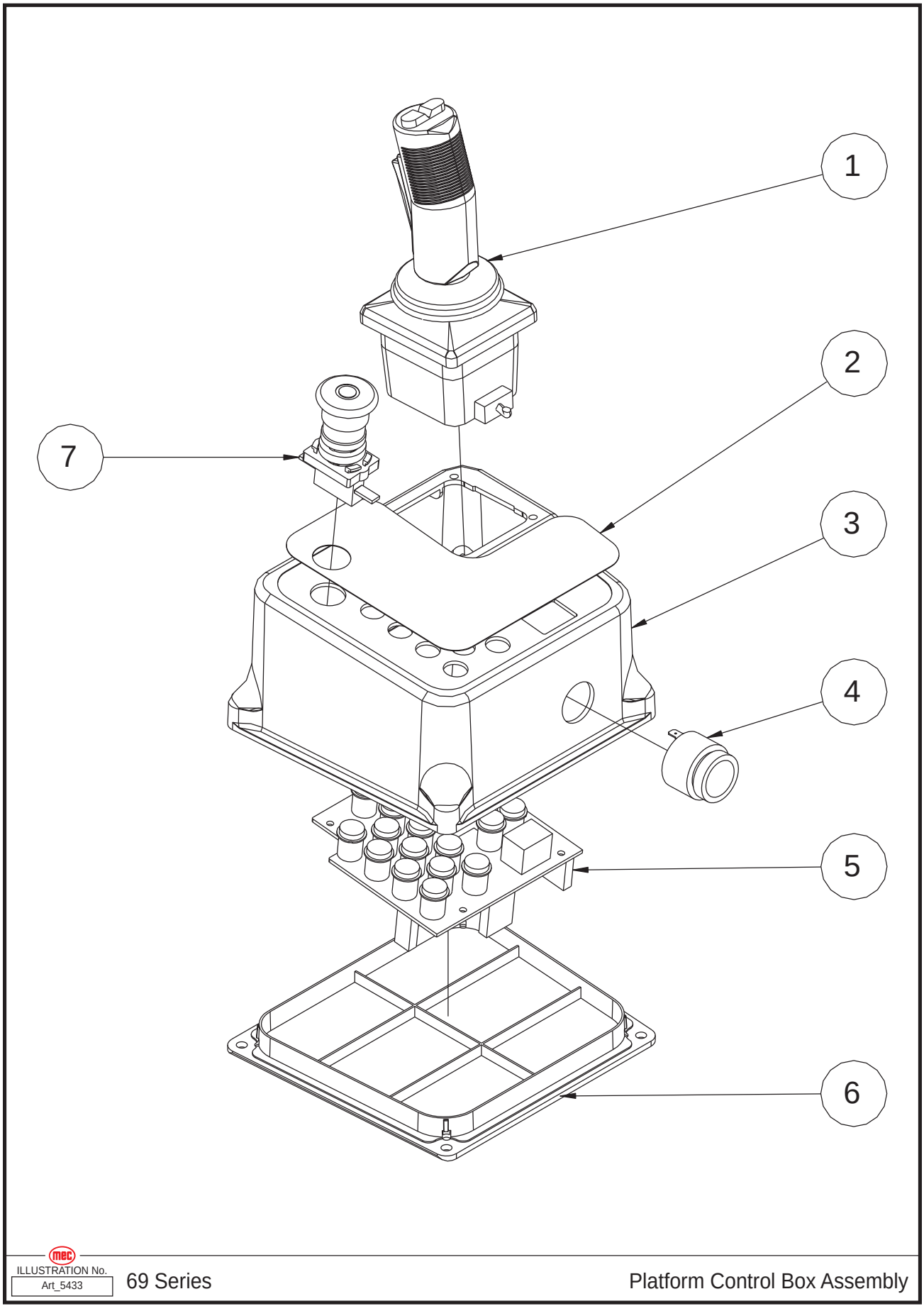


ILLUSTRATION No. Art_5433

69 Series

Platform Control Box Assembly

Item	Part Number	Description	Qty.
1	43353	Joystick	1
2	42528	Decal, Platform Control Panel	1
3	43355	Enclosure	1
4	41568	Alarm	1
5	43357	Main Board	1
6	43358	Cover Bottom	1
7	41157	Emergency Stop Switch	1

Lower Lift Cylinder Assembly

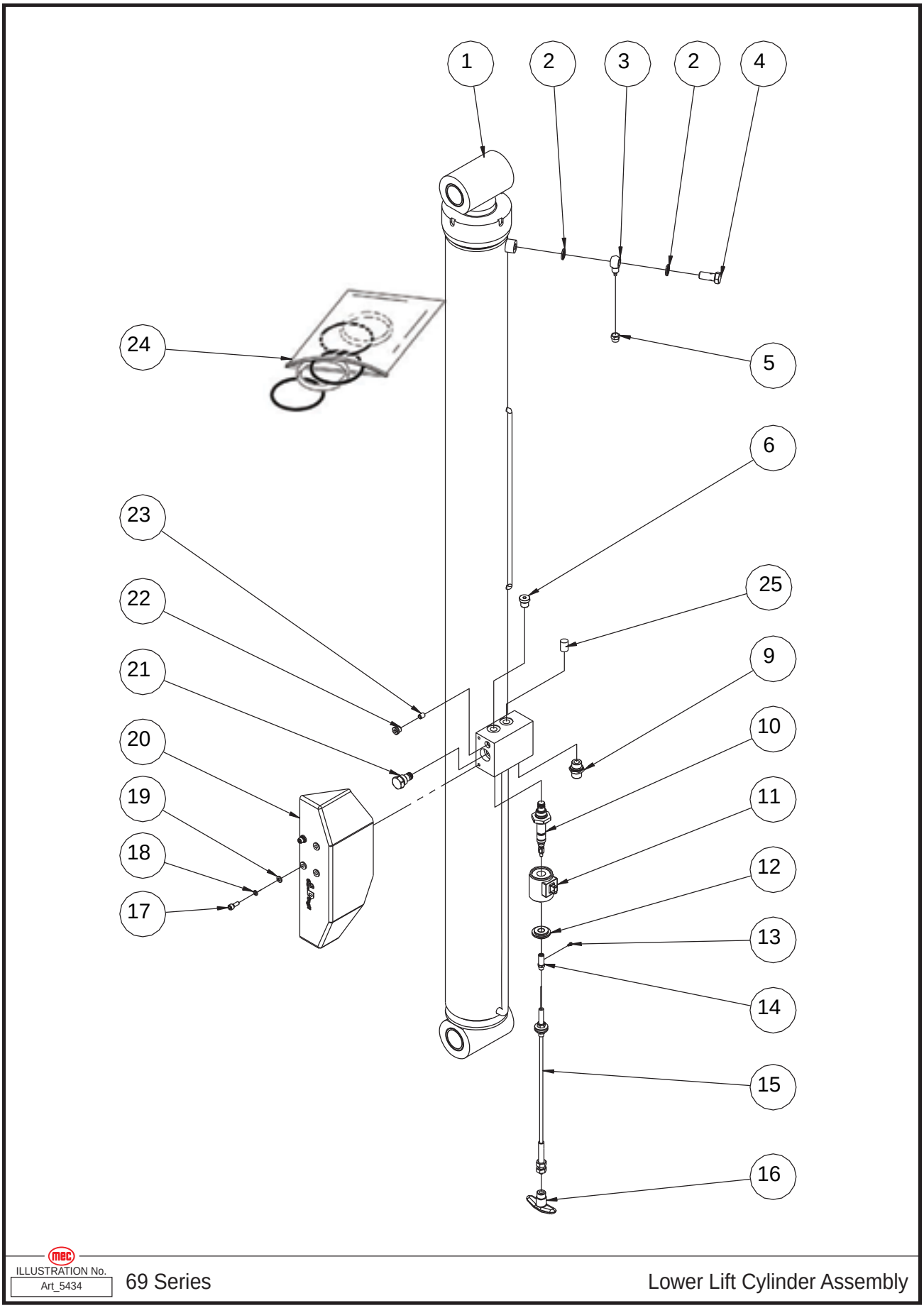


ILLUSTRATION No. Art_5434 69 Series Lower Lift Cylinder Assembly

Item	Part Number	Description	Qty.
1	43360	Lower Lift Cylinder	1
2	43361	Washer	2
3	41167	Fitting	1
4	41166	Fitting	1
5	41413	Nut	1
6	42480	Plug	1
7	--	--	--
8	--	--	--
9	43083	Straight Fitting	1
10	41363	Solenoid Valve Spool	1
11	43363	Coil - RT Models Only	1
12	43364	Nut	1
13	50576	SHCS M4 × 12	1
14	43365	Cable Connector	1
15	43366	Emergency Down Cable Assembly	1
16	41162	Lowering Knob	1
17	53138	SHCS M6 × 16	2
18	53046	WSHR M6 Spring Washer	2
19	50000	WSHR M6 Standard Flat	2
20	41164	Valve Cover	1
21	43369	Check Valve	1
22	42821	Plug	1
23	43370	Orifice	1
24	43371	Seal Kit	1
25	41288	Pressure Sensor	1

Upper Lift Cylinder Assembly

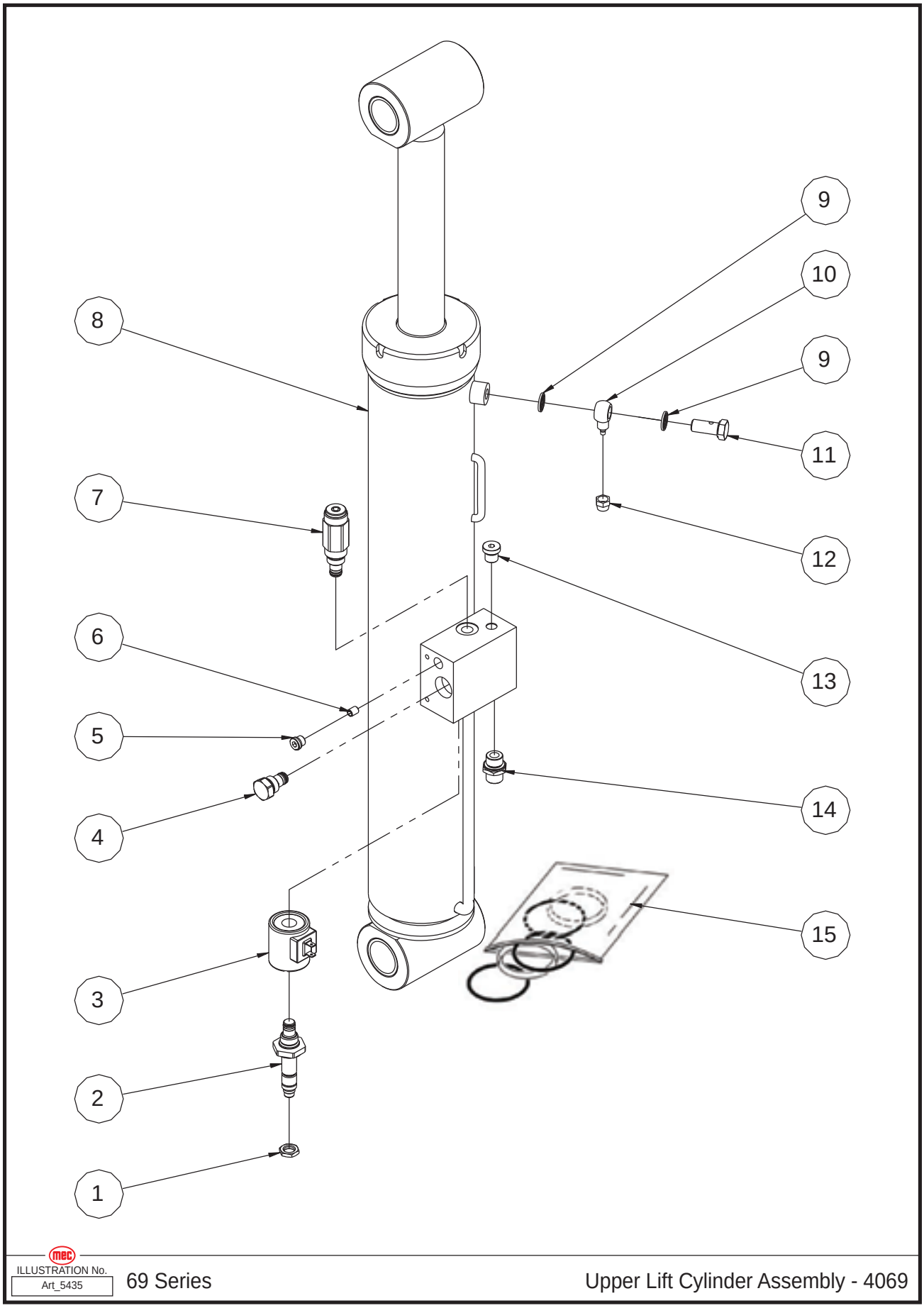


ILLUSTRATION No. Art_5435

69 Series

Upper Lift Cylinder Assembly - 4069

Item	Part Number	Description	Qty.
1	42795	Nut	1
2	43372	Solenoid Valve Spool	1
3	43373	Coil - RT Models Only	1
4	43369	Check Valve	1
5	42821	Plug	1
6	43374	Orifice	1
7	41169	Relief Valve	1
8	43376	Upper Lift Cylinder	1
9	43361	Washer	2
10	41167	Fitting	1
11	41166	Fitting	1
12	41413	Nut	1
13	42480	Plug	1
14	43083	Straight Fitting	1
15	43377	Seal Kit	1

Left Oscillate Cylinder Assembly

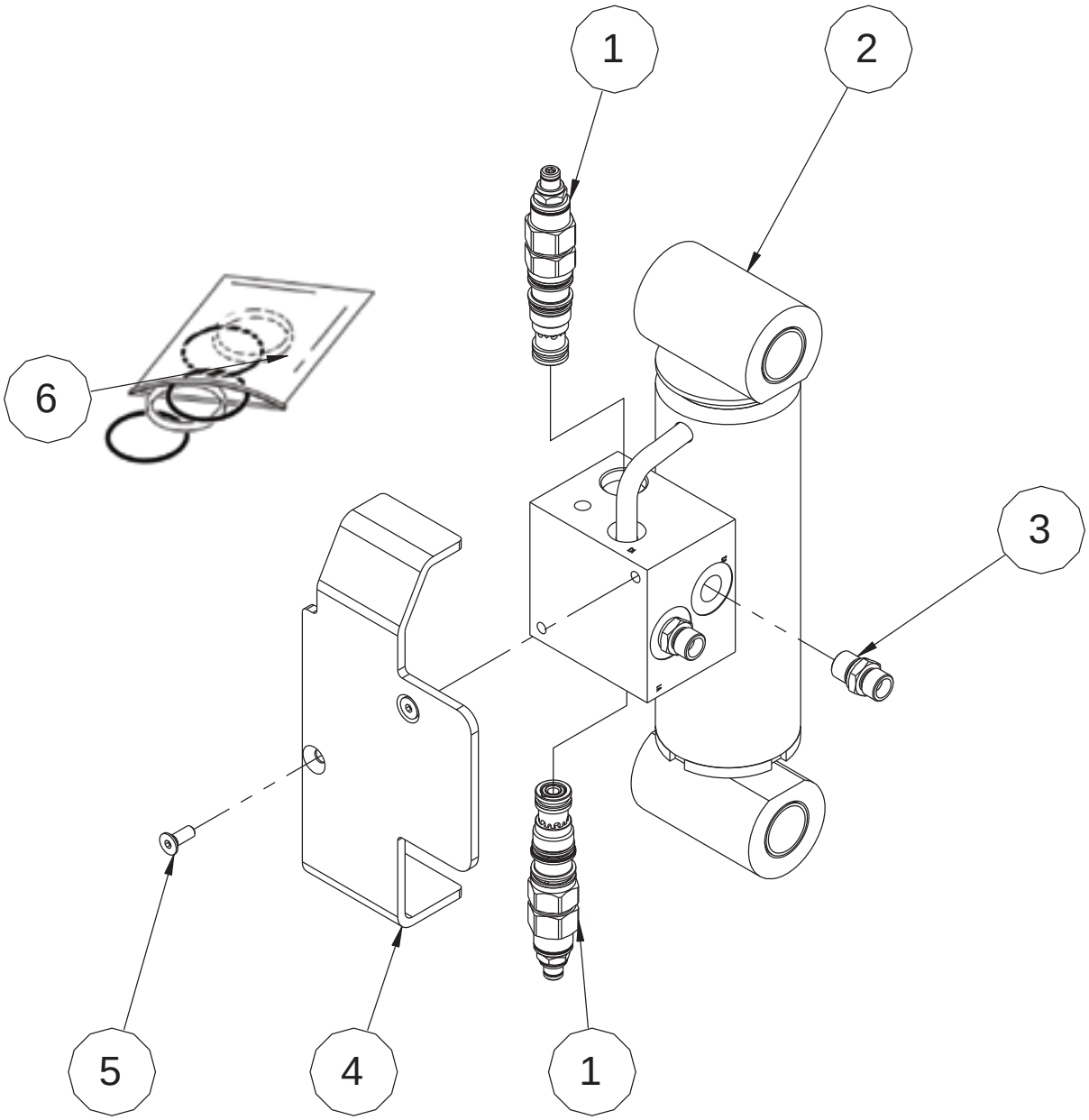


ILLUSTRATION No. Art_5436

69 Series

Left Oscillate Cylinder Assembly

Item	Part Number	Description	Qty.
1	43378	Counterbalance Valve Spool	2
2	43379	Left Oscillate Cylinder	1
3	43076	Straight Fitting	2
4	43380	Protect Cover	1
5	53226	CSCS M6 × 16	2
6	43381	Seal Kit	1

Right Oscillate Cylinder Assembly

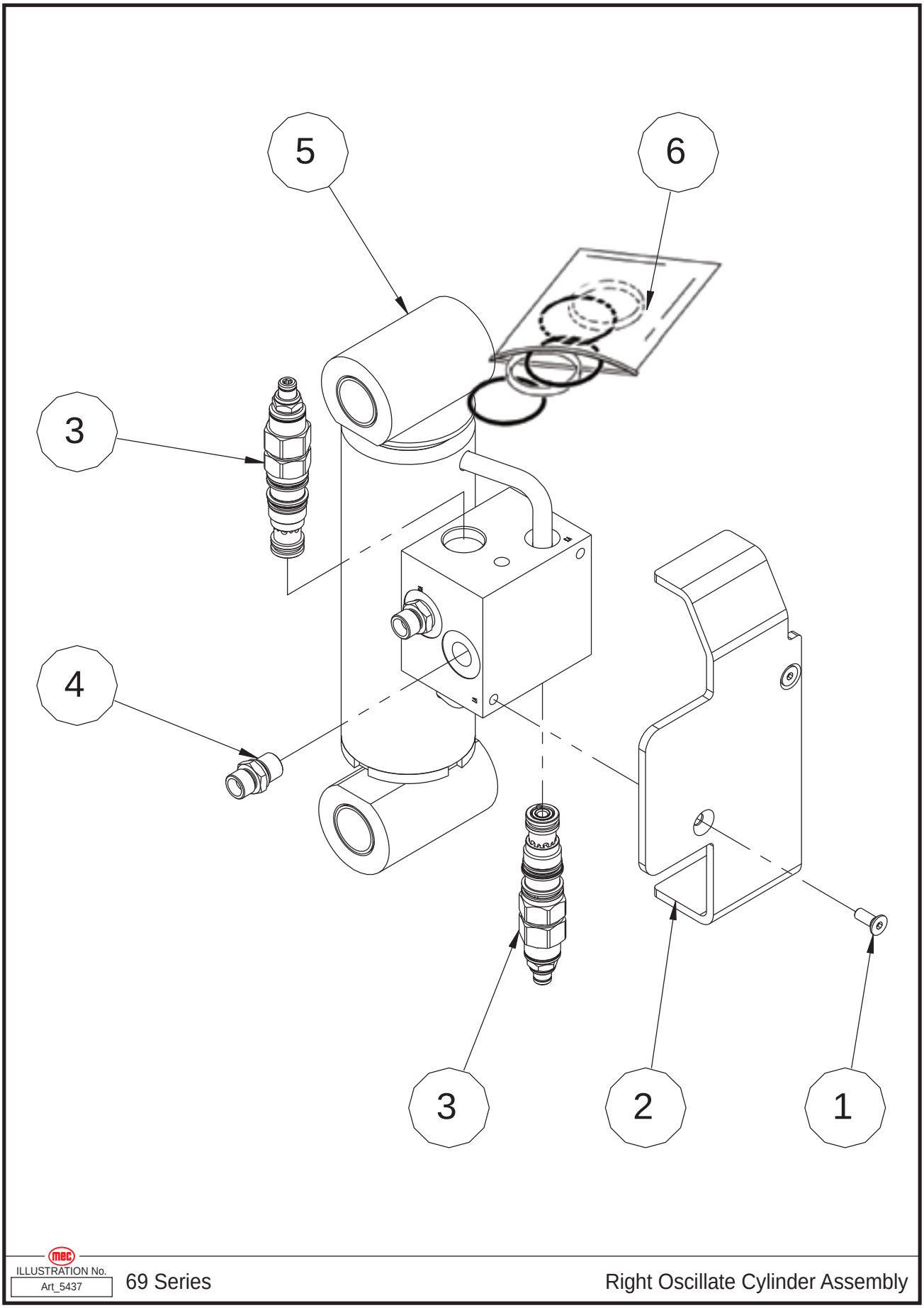


ILLUSTRATION No. Art_5437 69 Series Right Oscillate Cylinder Assembly

Item	Part Number	Description	Qty.
1	53226	CSCS M6 × 16	2
2	43382	Protect Cover	1
3	43378	Counterbalance Valve Spool	2
4	43076	Straight Fitting	2
5	43383	Right Oscillate Cylinder	1
6	43381	Seal Kit	1

Steer Cylinder Assembly

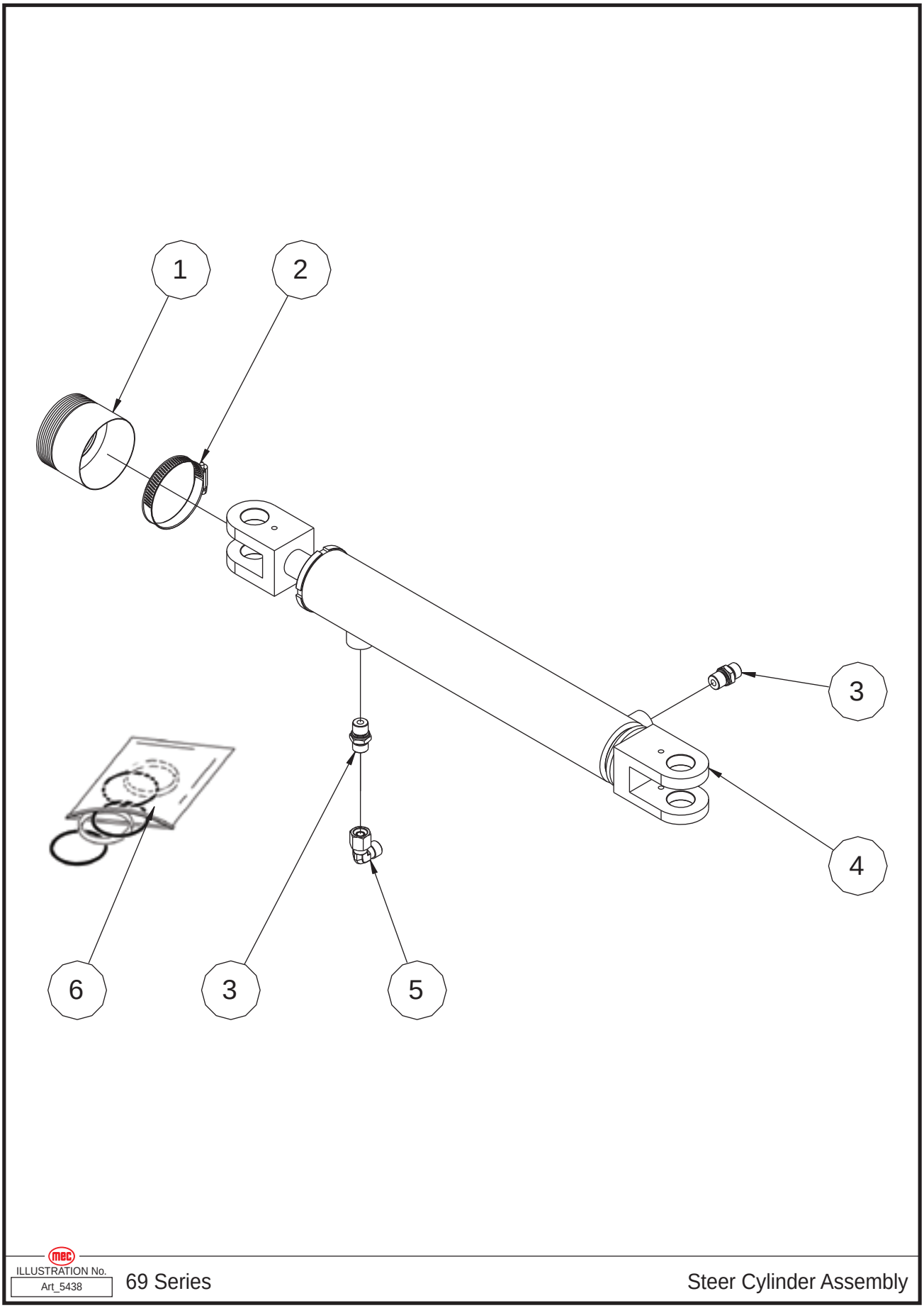


ILLUSTRATION No. Art_5438 69 Series Steer Cylinder Assembly

Item	Part Number	Description	Qty.
1	43384	Dustproof Sleeve	1
2	43385	Clamp	1
3	43076	Straight Fitting	2
4	43386	Steer Cylinder	1
5	43077	Elbow	1
6	43387	Seal Kit	1

Outrigger Cylinder Assembly (Option)

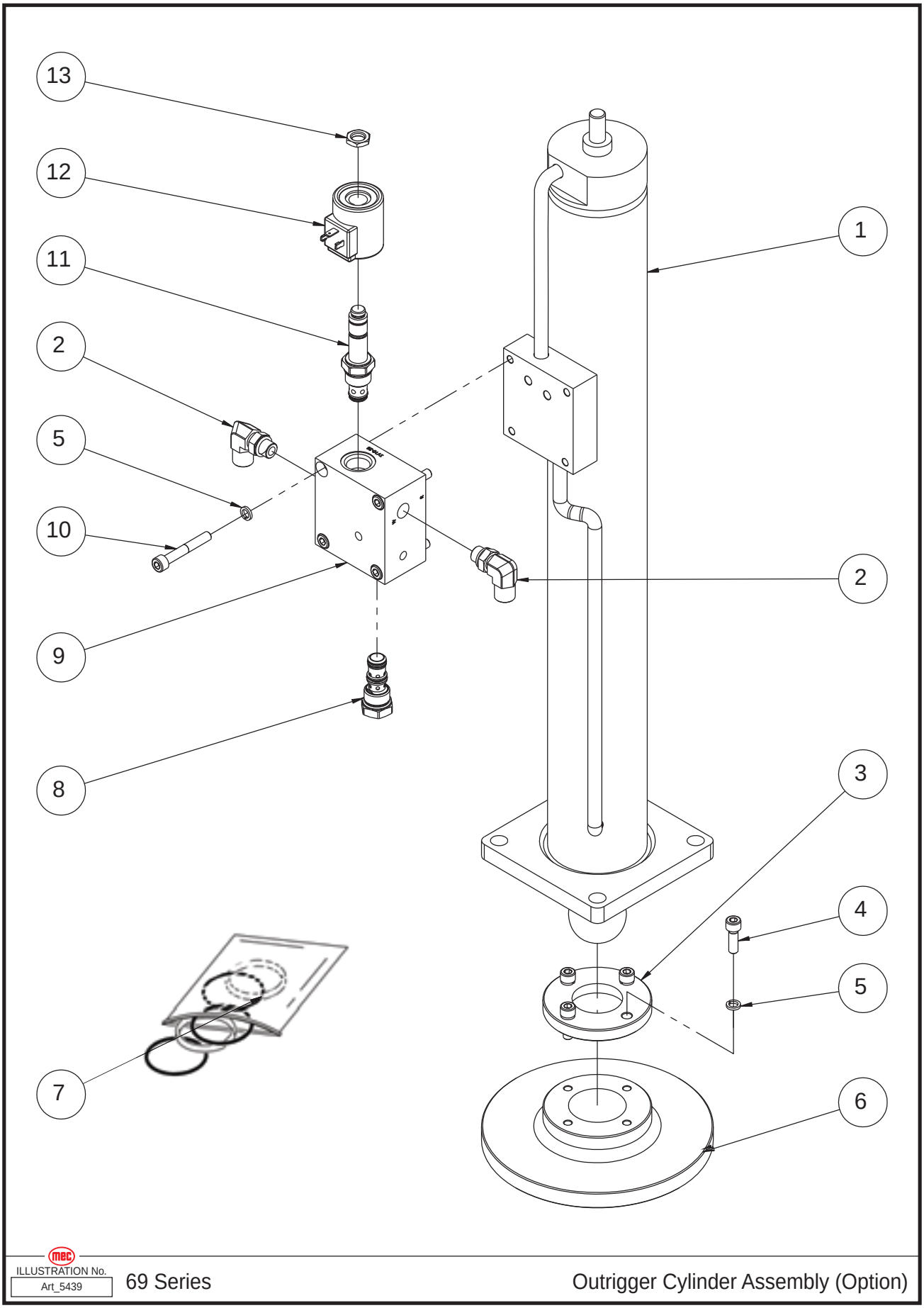


ILLUSTRATION No. Art_5439 69 Series Outrigger Cylinder Assembly (Option)

Item	Part Number	Description	Qty.
1	43388	Outrigger Cylinder	1
2	43389	Elbow	2
3	43390	Retainer	1
4	53210	SHCS M8 × 25	4
5	53055	WSHR M8 Spring Washer	8
6	43391	Outrigger Footpad	1
7	43392	Seal Kit	1
8	43393	Pilot-Operated Check Valve	1
9	43394	Valve Body	1
10	53211	SHCS M8 × 55	4
11	43395	Solenoid Valve Spool	1
12	42808	Coil - RT Model	1
13	42795	Nut	1

Function Manifold - RT Models

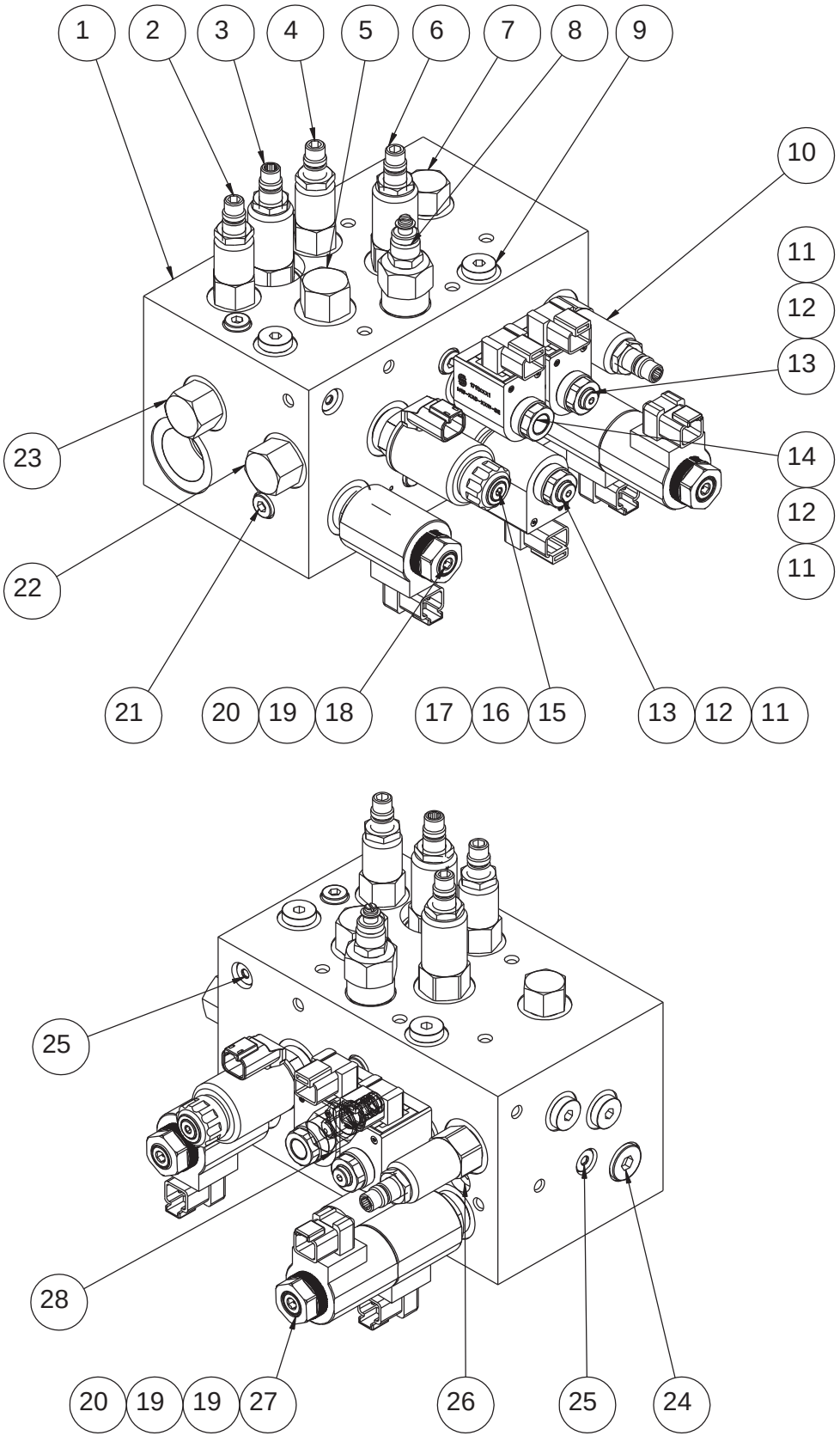


ILLUSTRATION No. Art_5440

69RT Series

Function Manifold

Item	Part Number	Description	Qty.
1	43396	Valve Body	1
2	43397	Relief Valve (R2)	1
3	43398	Relief Valve (R1)	1
4	43399	Relief Valve (R3)	1
5	43400	Logic Element (Y)	1
6	43401	Sequence Valve (K)	1
7	43402	Flow Control Valve (B)	1
8	43403	Flow Control Valve (G)	1
9	42480	Plug	4
10	43404	Relief Valve (R4)	1
11	43405	Nut	3
12	43406	Coil	3
13	43407	Solenoid Valve Spool (S4)	2
14	43408	Solenoid Valve Spool (S7)	1
15	43409	Proportional Valve (D)	1
16	43410	Coil	1
17	43411	Nut	1
18	43412	Solenoid Valve Spool (S2)	1
19	43413	Coil	3
20	43414	Nut	2
21	42821	Plug	6
22	43415	Flow Control Valve (H)	1
23	43416	Logic Element (A)	1
24	43417	Plug	1
25	43418	Check Valve (C2)	2
26	43419	Shuttle Valve (I)	1
27	43420	Solenoid Valve Spool (S1)	1
28	43421	Flow Control Valve (Z)	1

Drive Manifold - RT Models

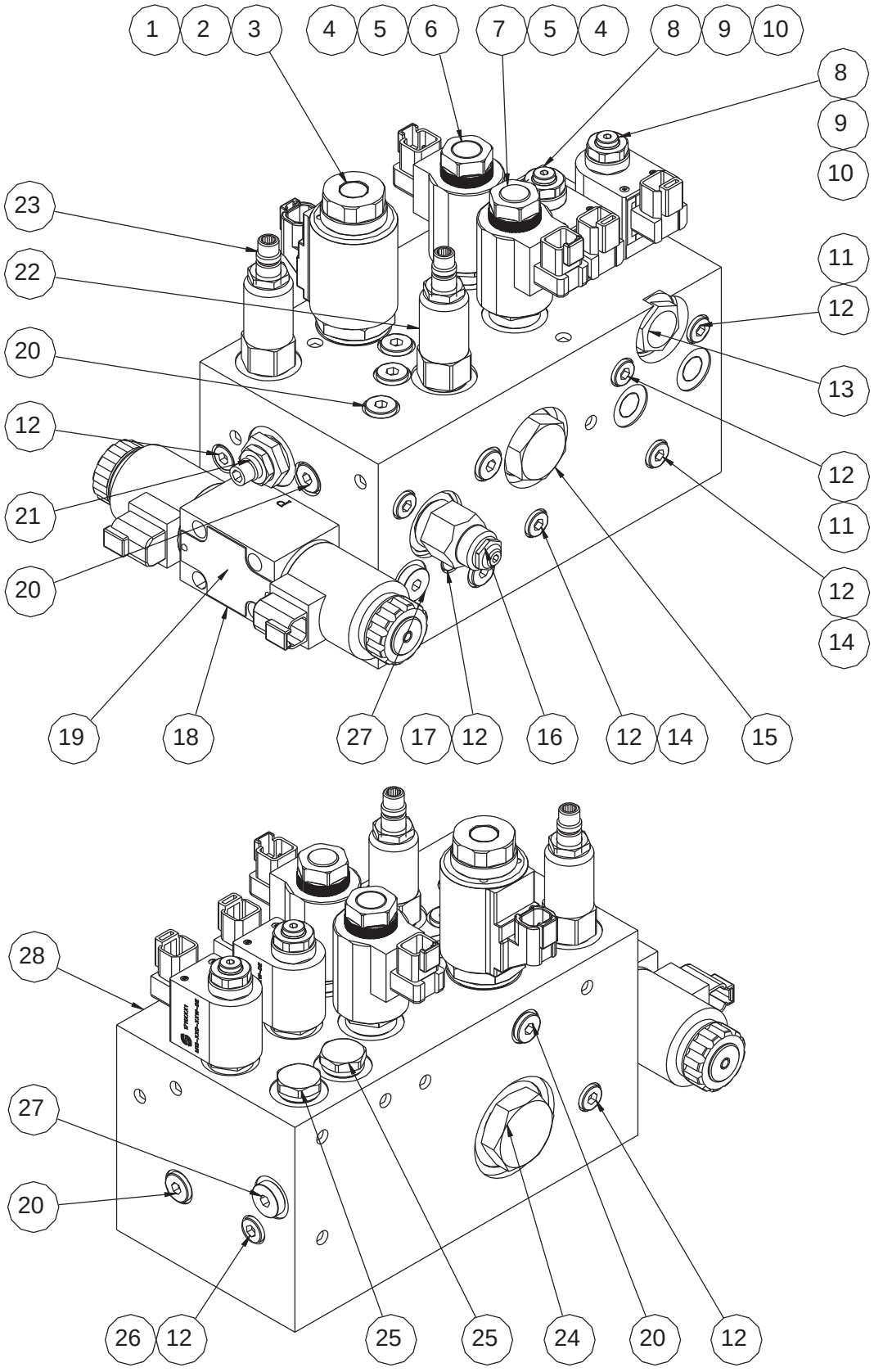


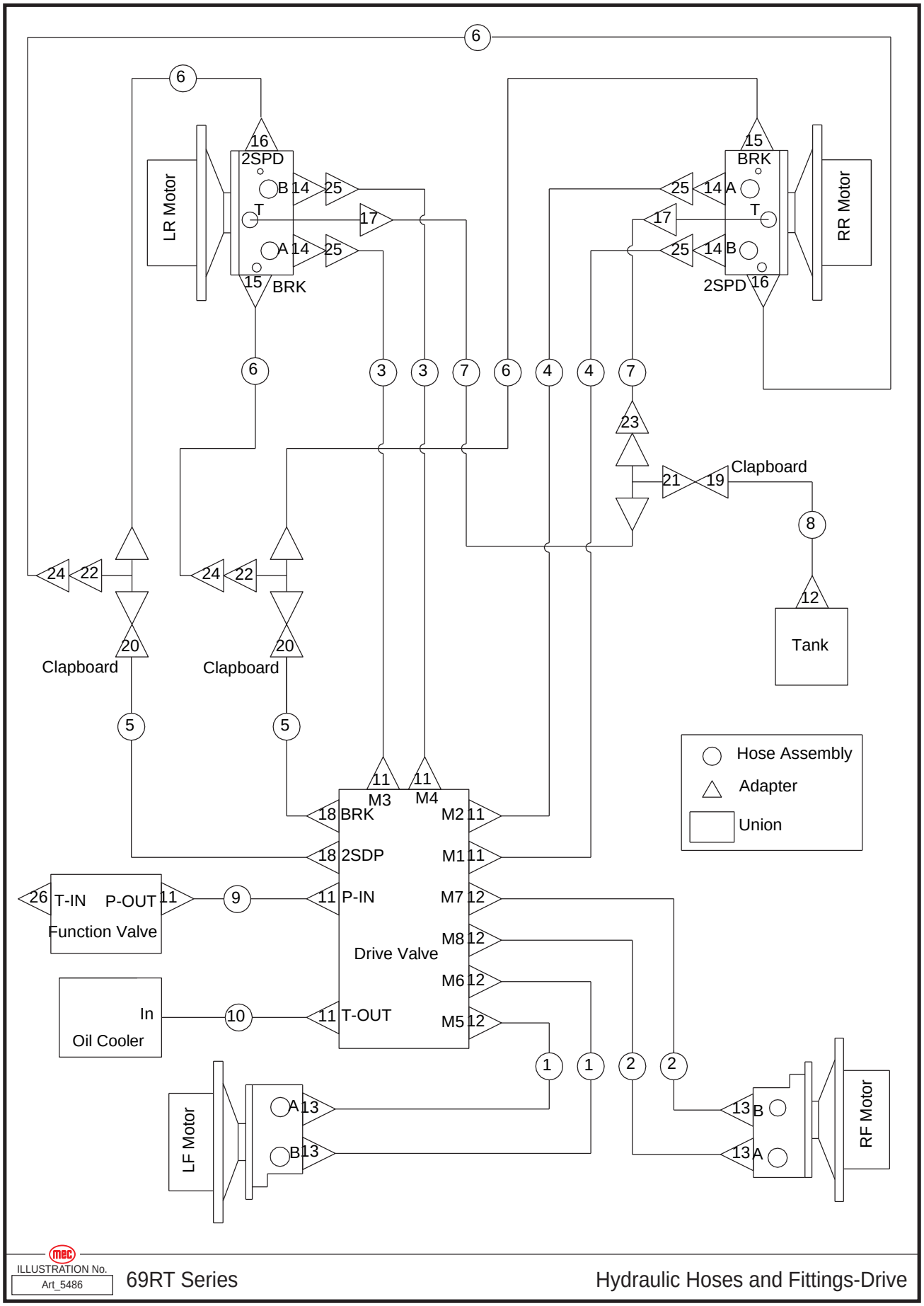
ILLUSTRATION No. Art_5441

69RT Series

Drive Manifold

Item	Part Number	Description	Qty.
1	43422	Nut	1
2	43423	Coil	1
3	43424	Solenoid Valve Spool (S8)	1
4	43414	Nut	2
5	43413	Coil	2
6	43425	Solenoid Valve Spool (S10)	1
7	43426	Solenoid Valve Spool (S9)	1
8	43407	Solenoid Valve Spool (S5)	2
9	43406	Coil	2
10	43405	Nut	2
11	43427	Orifice	2
12	42821	Plug	9
13	43428	Flow Divider/Combiner Valve (N)	1
14	43429	Orifice	2
15	43430	Flow Divider/Combiner Valve (M)	1
16	43431	Counterbalance Valve Spool (F)	1
17	43432	Orifice	1
18	43433	Directional Control Valve (E)	1
19	53216	SHCS M5 × 45	4
20	43434	Plug	8
21	43435	Throttle Valve (L)	1
22	43436	Relief Valve (R5)	1
23	43437	Pressure Reducing Valve (J)	1
24	43438	Flow Divider/Combiner Valve (T)	1
25	43439	Check Valve (C4)	2
26	43440	Orifice	1
27	42480	Plug	2
28	43441	Valve Body	1

Hydraulic Hoses and Fittings-Drive



Item	Part Number	Description	Qty.
1	43647	Hose Assembly	1
2	43648	Hose Assembly	1
3	43649	Hose Assembly	1
4	43650	Hose Assembly	1
5	43651	Hose Assembly	1
6	43652	Hose Assembly	1
7	43653	Hose Assembly	1
8	43654	Hose Assembly	4
9	43655	Hose Assembly	3
10	43656	Hose Assembly	1
11	43080	Straight Fitting	2
12	43083	Straight Fitting	2
13	43015	Straight Fitting	1
14	43039	Straight Fitting	1
15	43042	Straight Fitting	2
16	43041	Straight Fitting	2
17	43046	Straight Fitting	2
18	43076	Straight Fitting	2
19	43657	Straight Fitting	1
20	43658	Straight Fitting	2
21	43117	Tee Fitting	1
22	43078	Tee Fitting	2
23	43206	Elbow	1
24	43077	Elbow	2
25	43040	Elbow	4
26	43079	Plug	1

Hydraulic Hoses and Fittings-Function (3369RT)

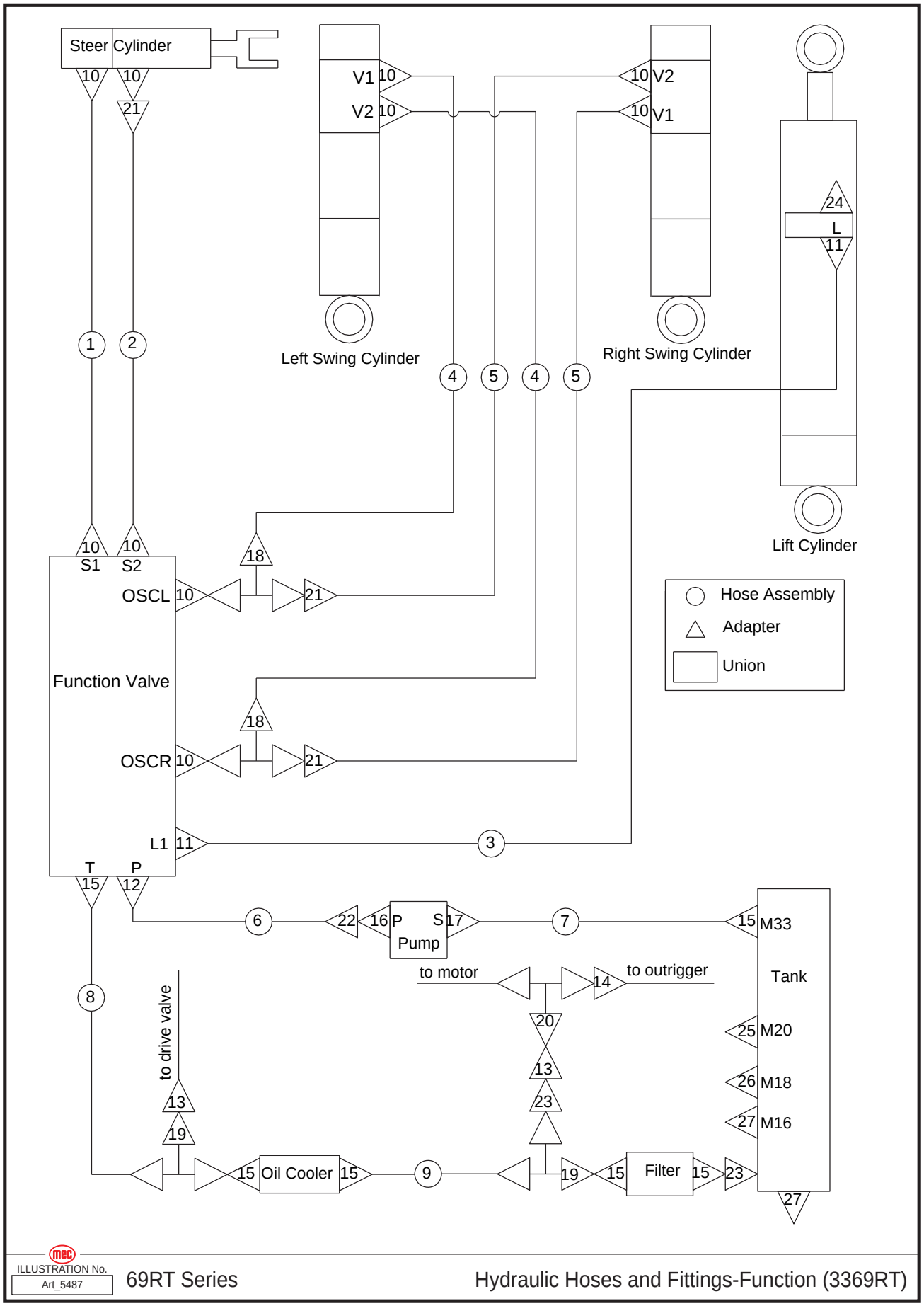


ILLUSTRATION No. Art_5487

69RT Series

Hydraulic Hoses and Fittings-Function (3369RT)

Item	Part Number	Description	Qty.
1	43659	Hose Assembly	1
2	43660	Hose Assembly	1
3	43661	Hose Assembly	1
4	43662	Hose Assembly	2
5	43663	Hose Assembly	2
6	43664	Hose Assembly	1
7	43665	Hose Assembly	1
8	43666	Hose Assembly	1
9	43667	Hose Assembly	1
10	43076	Straight Fitting	10
11	43083	Straight Fitting	2
12	43080	Straight Fitting	1
13	43668	Straight Fitting	2
14	43669	Straight Fitting	1
15	43085	Straight Fitting	6
16	43205	Straight Fitting	1
17	43203	Straight Fitting	1
18	43078	Tee Fitting	2
19	43115	Tee Fitting	2
20	43117	Tee Fitting	1
21	43077	Elbow	3
22	43206	Elbow	1
23	43112	Elbow	2
24	42480	Plug	1
25	43120	Plug	1
26	43124	Plug	1
27	43119	Plug	2

Hydraulic Hoses and Fittings-Function (4069RT)

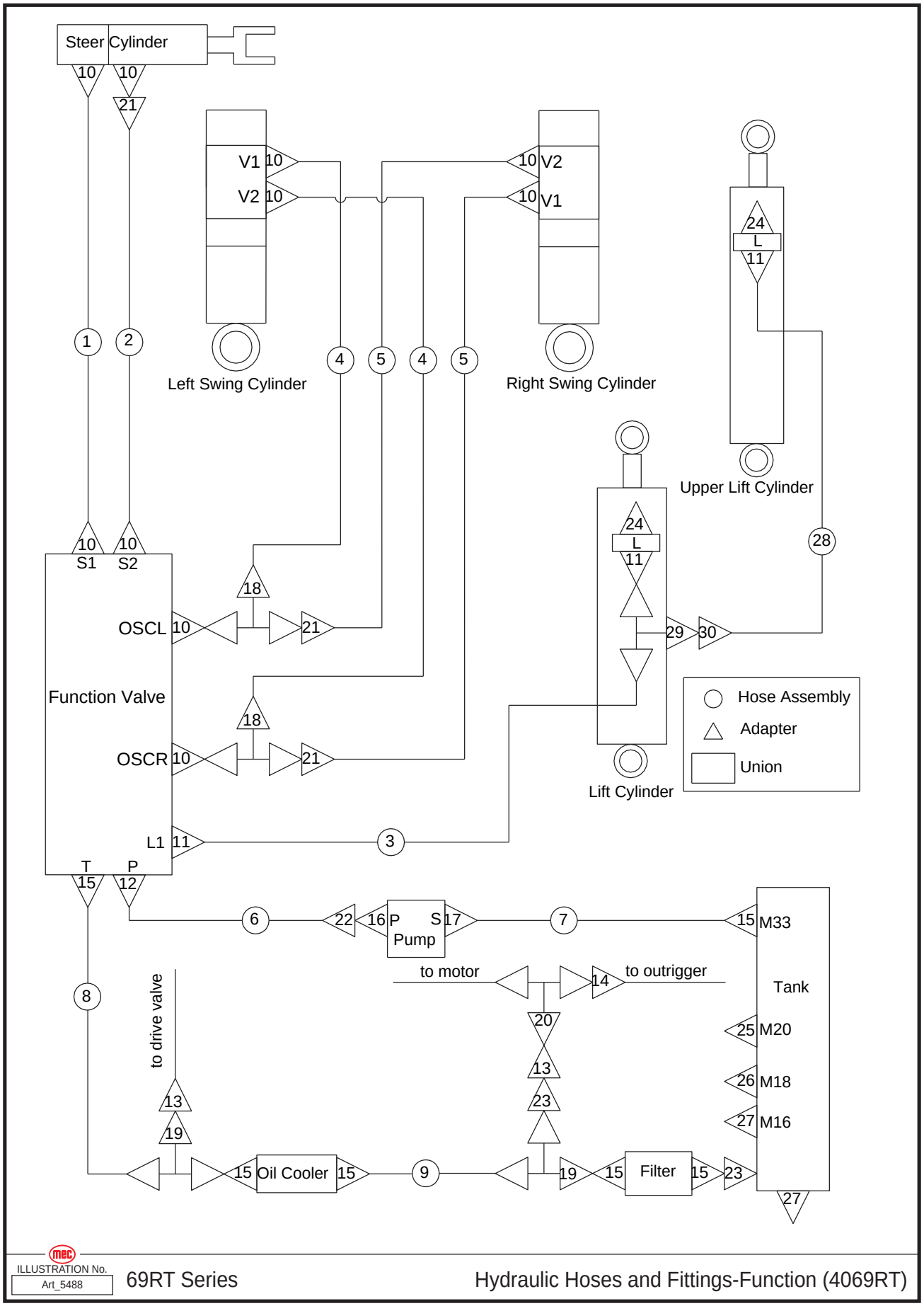


ILLUSTRATION No. Art_5488

69RT Series

Hydraulic Hoses and Fittings-Function (4069RT)

Item	Part Number	Description	Qty.
1	43659	Hose Assembly	1
2	43660	Hose Assembly	1
3	43661	Hose Assembly	1
4	43662	Hose Assembly	2
5	43663	Hose Assembly	2
6	43664	Hose Assembly	1
7	43665	Hose Assembly	1
8	43666	Hose Assembly	1
9	43667	Hose Assembly	1
10	43076	Straight Fitting	10
11	43083	Straight Fitting	3
12	43080	Straight Fitting	1
13	43668	Straight Fitting	2
14	43669	Straight Fitting	1
15	43085	Straight Fitting	6
16	43205	Straight Fitting	1
17	43203	Straight Fitting	1
18	43078	Tee Fitting	2
19	43115	Tee Fitting	2
20	43117	Tee Fitting	1
21	43077	Elbow	3
22	43206	Elbow	1
23	43112	Elbow	2
24	42480	Plug	2
25	43120	Plug	1
26	43124	Plug	1
27	43119	Plug	2
28	43670	Hose Assembly	1
29	43081	Tee Fitting	1
30	43082	Elbow	1

Hydraulic Hoses and Fittings-Outrigger

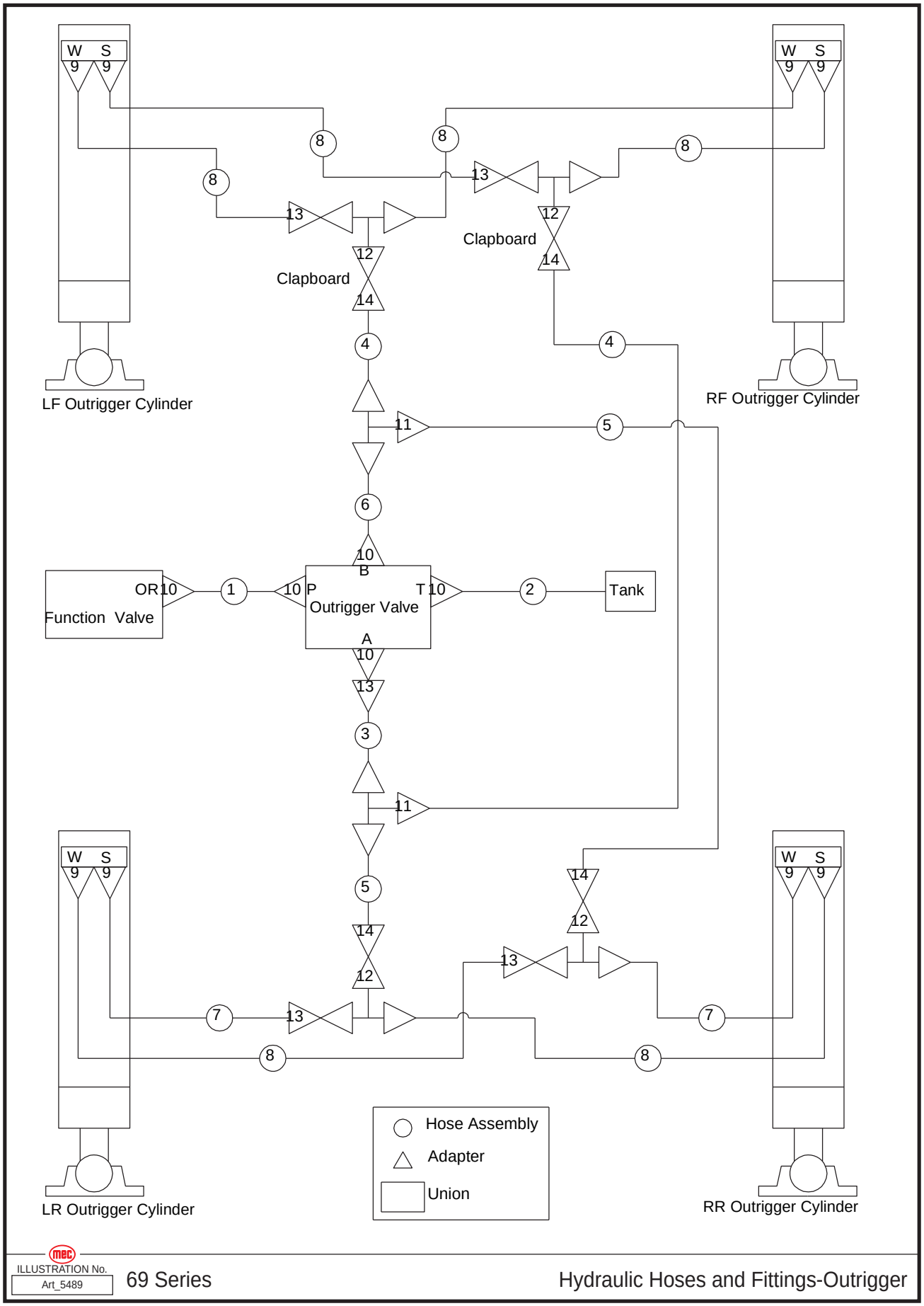


ILLUSTRATION No. Art_5489

69 Series

Hydraulic Hoses and Fittings-Outrigger

Item	Part Number	Description	Qty.
1	43671	Hose Assembly	1
2	43672	Hose Assembly	1
3	43673	Hose Assembly	1
4	43674	Hose Assembly	2
5	43675	Hose Assembly	2
6	43676	Hose Assembly	1
7	43677	Hose Assembly	2
8	43678	Hose Assembly	6
9	43389	Elbow	8
10	43083	Straight Fitting	5
11	43679	Tee Fitting	2
12	43081	Tee Fitting	4
13	43082	Elbow	5
14	43680	Straight Fitting	4

Electrical Harness (3369RT)

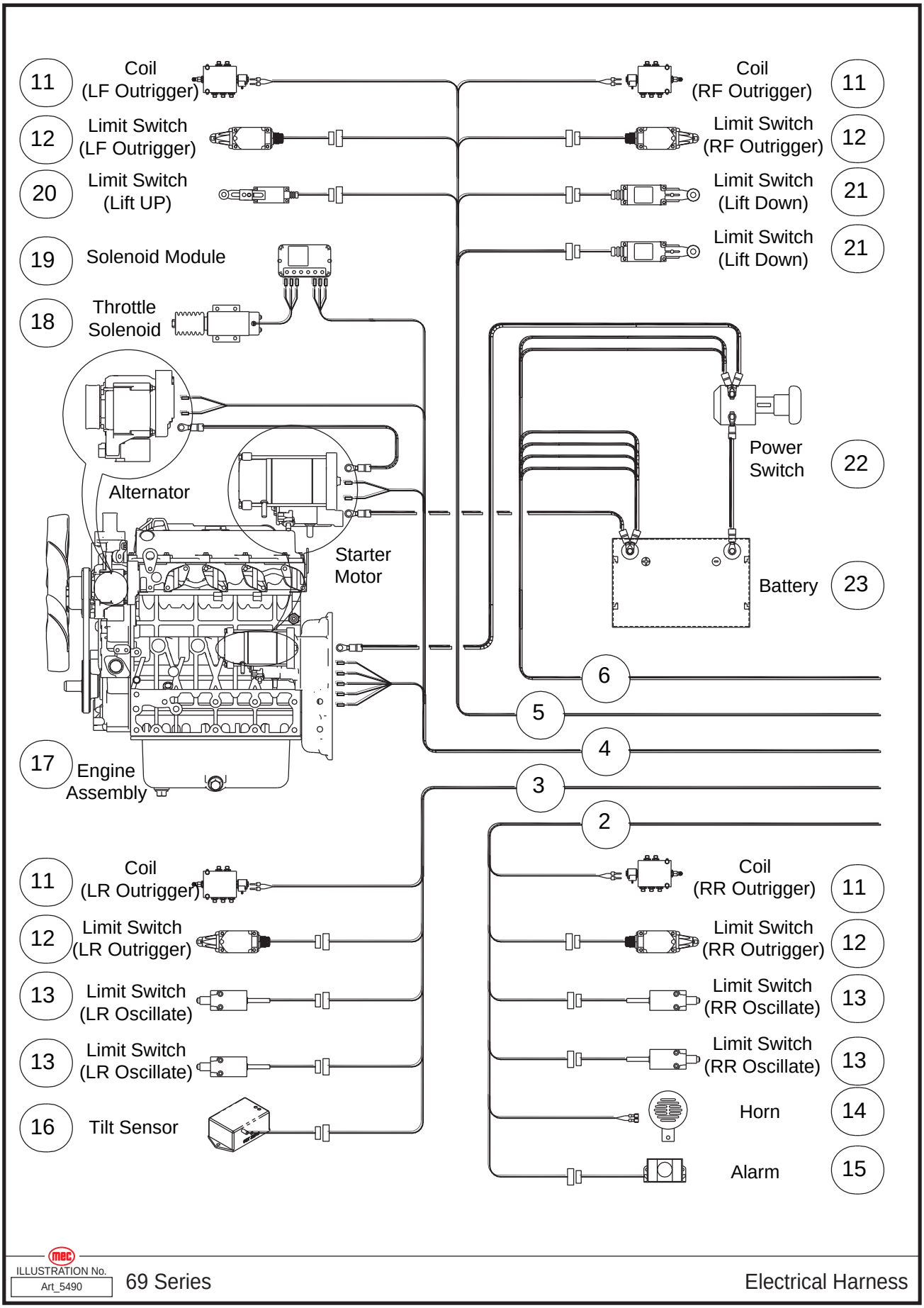


ILLUSTRATION No. Art_5490

69 Series

Electrical Harness

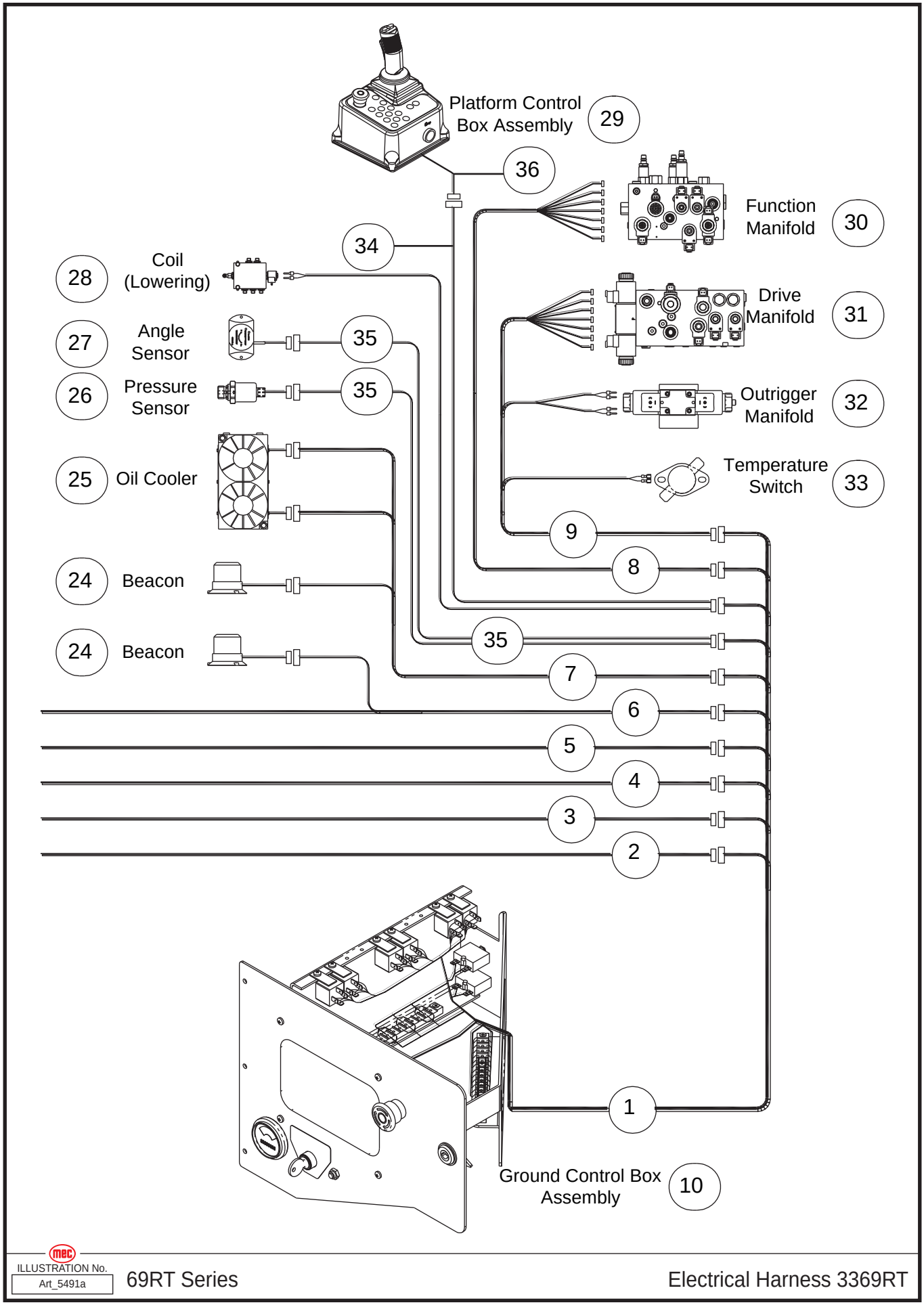


ILLUSTRATION No. Art_5491a

69RT Series

Electrical Harness 3369RT

Item	Part Number	Description	Qty.
1	43681	Ground Control Box Harness	1
2	43682	Outrigger Harness 3	1
3	43683	Outrigger Harness 1	1
4	43684	Engine Harness	1
5	43685	Outrigger Harness 2	1
6	43686	Ground Control Box Power Harness	1
7	43687	Accessories Harness	1
8	43688	Manifold Harness 2	1
9	43689	Manifold Harness 3	1
10	REF	Ground Control Box Assembly (Refer To Page 59)	1
11	REF	Coil (Refer To Page 141)	4
12	REF	Limit Switch (Refer To Page 85)	4
13	REF	Limit Switch (Refer To Page 43)	4
14	REF	Horn (Refer To Page 97)	1
15	REF	Alarm (Refer To Page 97)	1
16	REF	Tilt Sensor (Refer To Page 97)	1
17	REF	Engine (Refer To Page 81)	1
18	REF	Throttle Solenoid (Refer To Page 85)	1
19	REF	Solenoid Module (Refer To Page 85)	1
20	REF	Limit Switch (Refer To Page 91)	1
21	REF	Limit Switch (Refer To Page 99)	2
22	REF	Power Switch (Refer To Page 69)	1
23	REF	Battery (Refer To Page 69)	1
24	REF	Beacon (Refer To Page 53, 69)	2
25	REF	Oil Cooler (Refer To Page 53)	1
26	--	--	--
27	--	--	--
28	REF	Coil (Refer To Page 131)	1
29	REF	Platform Control Box Assembly (Refer To Page 127)	1
30	REF	Function Manifold (Refer To Page 143)	1
31	REF	Drive Manifold (Refer To Page 145)	1
32	REF	Outrigger Manifold (Refer To Page 55)	1
33	REF	Temperature Switch (Refer To Page 57)	1
34	44486	Harness, Comm Cable 3369RT/ERT	1
35	47212	Harness, Sensors, 3369RT/ERT	1
36	41152	Coil Cord	1

REF - Reference

Electrical Harness (4069RT)

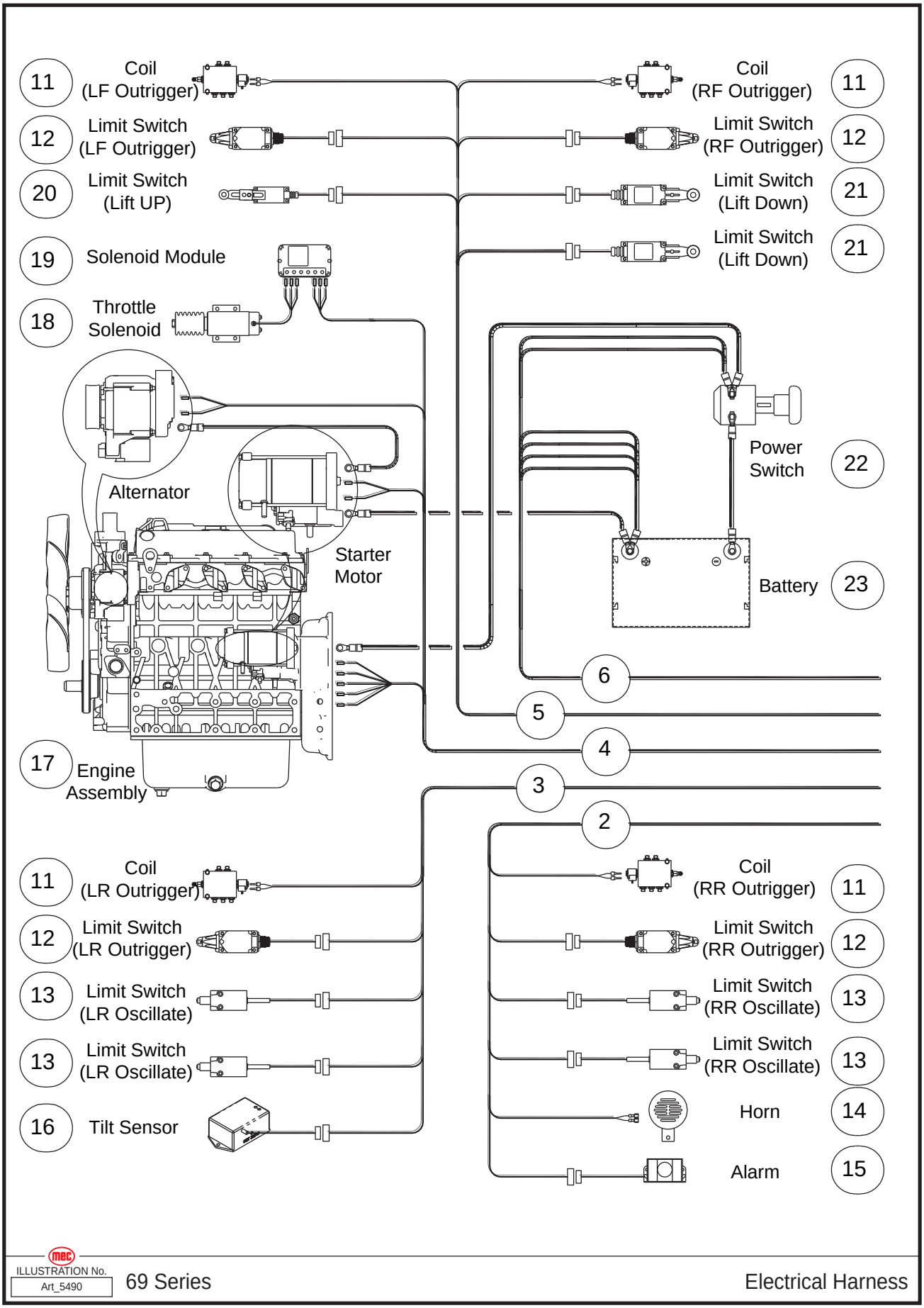


ILLUSTRATION No. Art_5490

69 Series

Electrical Harness

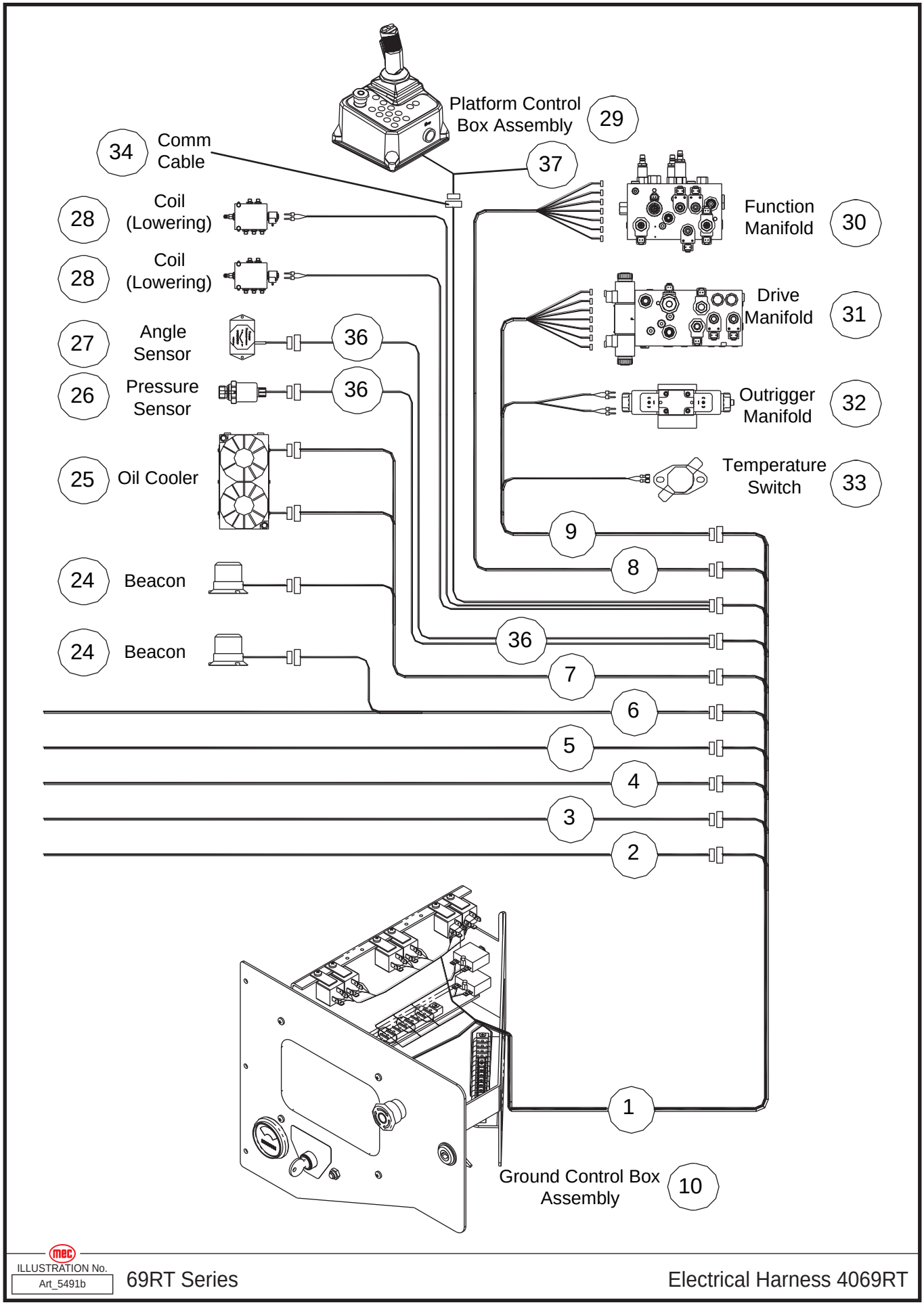


ILLUSTRATION No. Art_5491b

69RT Series

Electrical Harness 4069RT

Item	Part Number	Description	Qty.
1	43681	Ground Control Box Harness	1
2	43682	Outrigger Harness 3	1
3	43683	Outrigger Harness 1	1
4	43684	Engine Harness	1
5	43685	Outrigger Harness 2	1
6	43686	Ground Control Box Power Harness	1
7	43687	Accessories Harness	1
8	43688	Manifold Harness 2	1
9	43689	Manifold Harness 3	1
10	REF	Ground Control Box Assembly (Refer To Page 59)	1
11	REF	Coil (Refer To Page 141)	4
12	REF	Limit Switch (Refer To Page 85)	4
13	REF	Limit Switch (Refer To Page 43)	4
14	REF	Horn (Refer To Page 97)	1
15	REF	Alarm (Refer To Page 97)	1
16	REF	Tilt Sensor (Refer To Page 97)	1
17	REF	Engine (Refer To Page 81)	1
18	REF	Throttle Solenoid (Refer To Page 85)	1
19	REF	Solenoid Module (Refer To Page 85)	1
20	REF	Limit Switch (Refer To Page 91)	1
21	REF	Limit Switch (Refer To Page 99)	2
22	REF	Power Switch (Refer To Page 69)	1
23	REF	Battery (Refer To Page 69)	1
24	REF	Beacon (Refer To Page 53, 69)	2
25	REF	Oil Cooler (Refer To Page 53)	1
26	--	--	--
27	--	--	--
28	REF	Coil (Refer To Page 131, 133)	1
29	REF	Platform Control Box Assembly (Refer To Page 127)	1
30	REF	Function Manifold (Refer To Page 143)	1
31	REF	Drive Manifold (Refer To Page 145)	1
32	REF	Outrigger Manifold (Refer To Page 55)	1
33	REF	Temperature Switch (Refer To Page 57)	1
34	44021	Harness, Comm Cable	1
35	44025	Harness, Lowering Valves	1
36	44488	Harness, Sensors, 4069RT/ERT	1
37	41152	Coil Cord	1

REF - Reference

Power to Platform

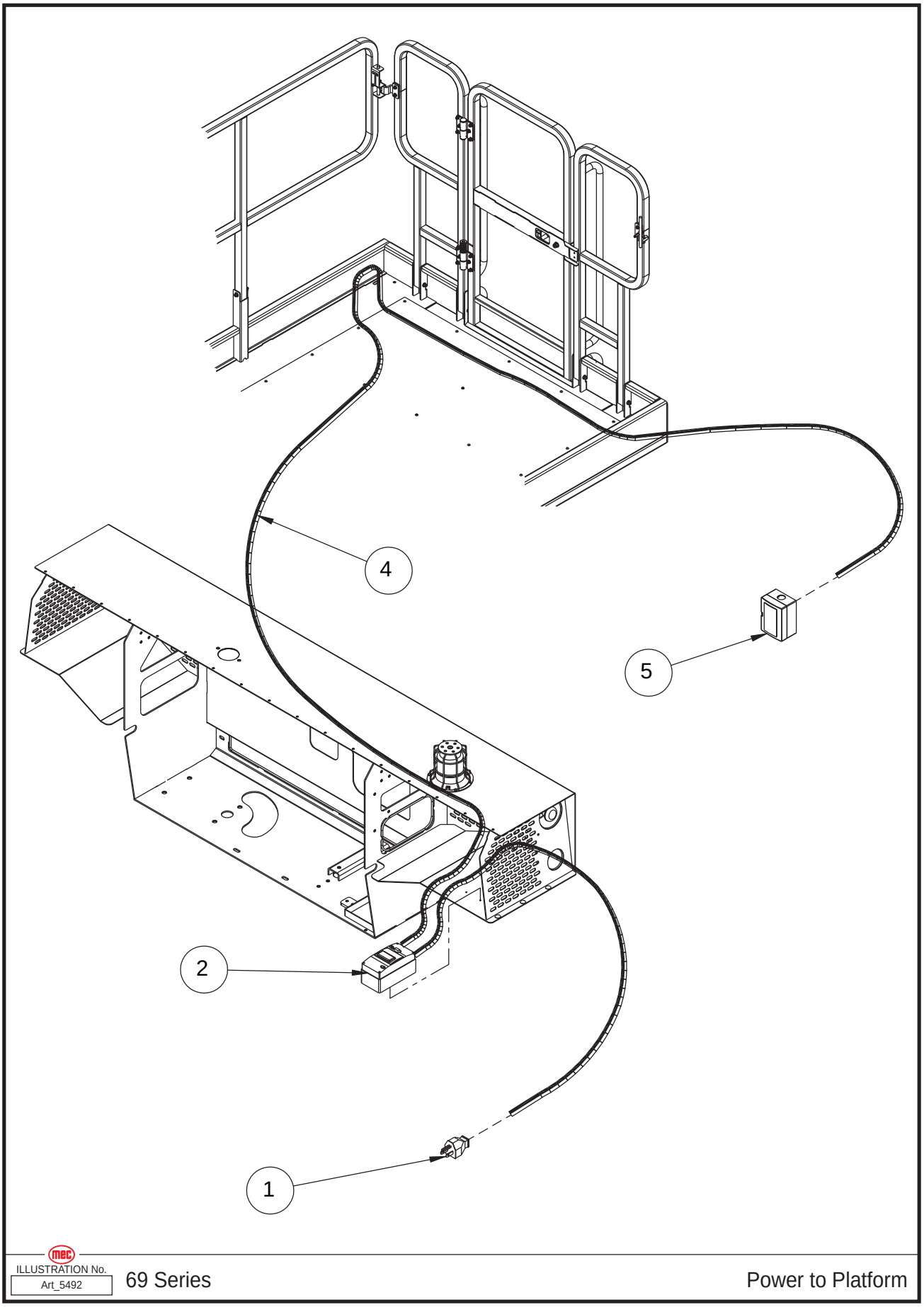
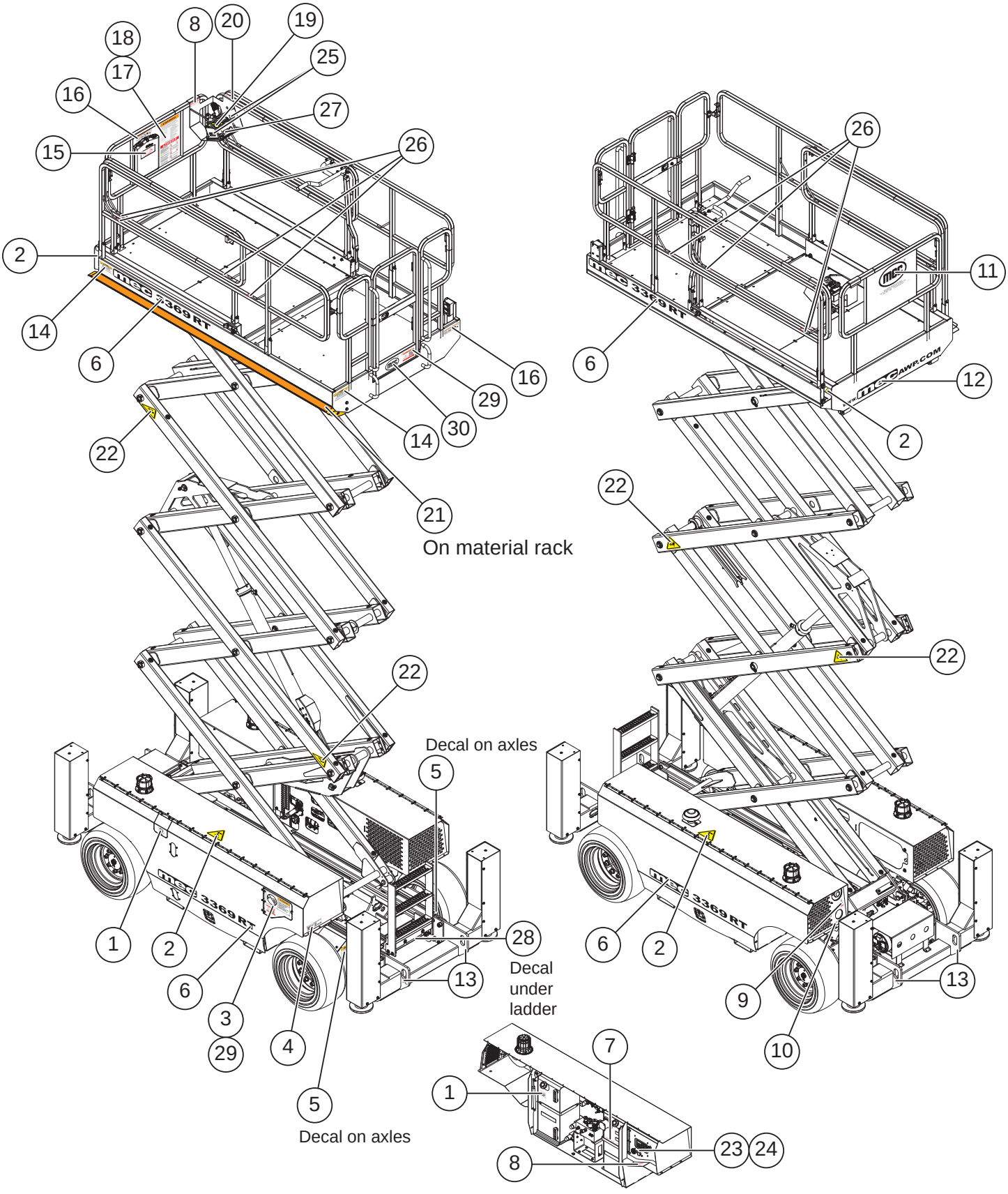


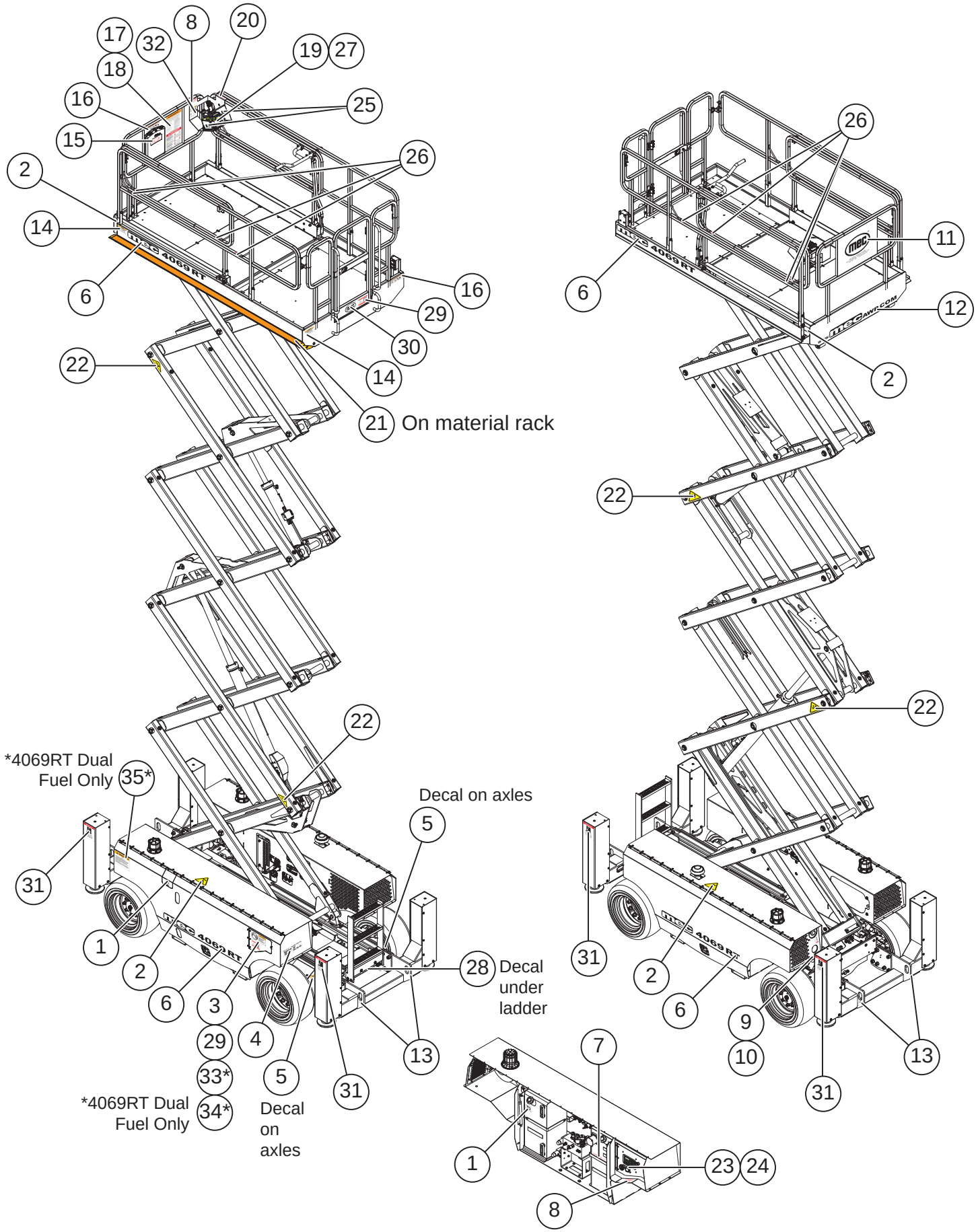
ILLUSTRATION No. Art_5492 69 Series Power to Platform

Item	Part Number	Description	Qty.
1	43690	AC Plug	1
2	43691	Circuit Breaker (Option)	1
4	43692	Wire Cable, Platform AC Power (3369RT)	1
	43693	Wire Cable, Platform AC Power (4069RT)	1
5	43694	AC Socket	1

3369RT Decals



4069RT Decals



1

91975 Qty. - 2

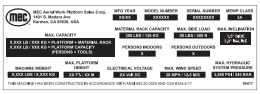
2

91850 Qty. - 4

3

90732 Qty. - 1

4



95417 Qty. - 1

5

90725 Qty. - 2

6

3369RT Only

94857 Qty. - 4

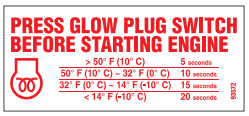
4069RT Only

93209 Qty. - 4

7

6873 Qty. - 1

8



93572 Qty. - 2

9

9052 Qty. - 1

10

90751 Qty. - 1

11

90719 Qty. - 1

12

92416 Qty. - 1

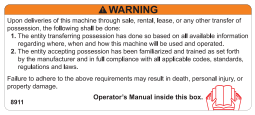
13

91973 Qty. - 4

14

94872 Qty. - 2

15



8911 Qty. - 1

16

3369RT Only

94868 Qty. - 2

4069RT Only

94870 Qty. - 2

17

90722 Qty. - 1

18

90721 Qty. - 1

19

42528 Qty. - 1

20

7155 Qty. - 1

21

UHMV Strip
3" x 1/8" (80mm x 3mm)
Length 9 ft (2.8 m)

94899 Qty. - 1

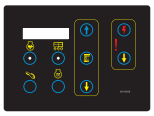
22

9910 Qty. - 4

23

43102 Qty. - 1

24



43086 Qty. - 1

25

94120 Qty. - 2

26

91970 Qty. - 8

27

94122 Qty. - 1

28

41636 Qty. - 1

29

95261 Qty. - 2

30

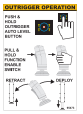
95301 Qty. - 1

31

4069RT Option

9465 Qty. - 4

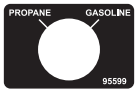
32



4069RT Option

95473 Qty. - 1

33



4069RT Option Dual Fuel

95599 Qty. - 1

34

4069RT Option Dual Fuel

95611 Qty. - 1

35

4069RT Option Dual Fuel

6948 Qty. - 1

Notes

MEC Parts Order Form

Phone: 559-842-1523
Fax: 559-400-6723
Email: Parts@mecawp.com

Please fill out completely

Date: _____

Account: _____

Bill to: _____

_____

_____

_____

Ordered By: _____

Your Fax No.: _____

Ship to: _____

_____

_____

_____

Purchase Order Number _____
** All orders MUST have a Purchase Order Number

Ship VIA _____
**Fed Ex shipments require Fed Ex account number

Part Number	Description	Quantity	Price

All back-ordered parts will be shipped when available via the same ship method as original order unless noted below:

___ Ship complete order only - No Backorders
___ Ship all available parts and contact customer on disposition of back-ordered parts
___ Other (Please specify)

_____

Limited Owner Warranty

MEC Aerial Platform Sales Corp. warrants its equipment to the original purchaser against defects in material and/or workmanship under normal use and service for one (1) year from date of registered sale or date the unit left the factory if not registered. MEC Aerial Platform Sales Corp. further warrants the structural weldments of the main frame and scissor arms to be free from defects in material or workmanship for five (5) years from date of registered sale or date unit left the factory if not registered. Excluded from such warranty is the battery(s) which carries a ninety (90) day warranty from described purchase date. Warranty claims within such warranty period shall be limited to repair or replacement, MEC Aerial Platform Sales Corp's option, of the defective part in question and labor to perform the necessary repair or replacement based on MEC Aerial Platform Sales Corp's then current flat rate, provided the defective part in question is shipped prepaid to MEC Aerial Platform Sales Corp. and is found upon inspection by MEC Aerial Platform Sales Corp. to be defective in material and/or workmanship. MEC Aerial Platform Sales Corp. shall not be liable for any consequential, incidental or contingent damages whatsoever. Use of other than factory authorized parts; misuse, improper maintenance, or modification of the equipment voids this warranty. The foregoing warranty is exclusive and in lieu of all other warranties, express or implied. All such other warranties, including implied warranties of merchantability and of fitness for a particular purpose, are hereby excluded. No Dealer, Sales Representative, or other person purporting to act on behalf of MEC Aerial Platform Sales Corp. is authorized to alter the terms of this warranty, or in any manner assume on behalf of MEC Aerial Platform Sales Corp. any liability or obligation which exceeds MEC Aerial Platform Sales Corp's obligations under this warranty.

MEC Aerial Work Platforms

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